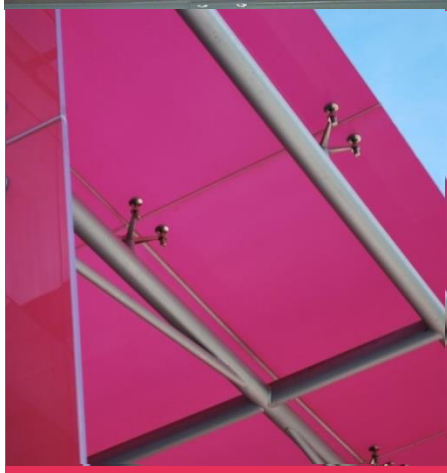








The Ev0 Building, Didsbury Technology Park

Transport Assessment

Curtins Ref: 81025-CUR-XX-XX-T-TP-00001

Revision: P04

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Client Name: Bruntwood Works

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1.0 Introduction

1.1 Background

1.1.1 Curtins has been appointed on behalf of Bruntwood Works (referred to as Bruntwood throughout this report) to provide highways and transport advice in relation to development proposals at Didsbury Technology Park in West Didsbury, Manchester.

1.1.2 The development comprises the following:

"Construction of a ground plus five storey commercial building for use as offices (Use Class E(c)) with ancillary café on ground floor (Use Class E(b)), erection of ground plus two storey multi-storey car park (Sui Generis) together with landscaping and highway works, a new access and other associated works"

1.1.3 The building is expected to be the UK's largest timber framed building, which is an essential component of achieving a net zero carbon development.

1.1.4 The site of the proposed development comprises an area of soft landscaping and a surface level car park. The site falls within a site allocation for commercial development, as identified by saved UDP policy DB12b.

1.1.5 A Development Framework for the site allocation was endorsed in 2014 (referred to as the Siemens Development Framework), which identified high level guiding development principles for the future masterplan. This area has since become known as Didsbury Technology Park.

1.1.6 The site location in relation to Didsbury Technology Park is shown in **Figure 1.1** below:

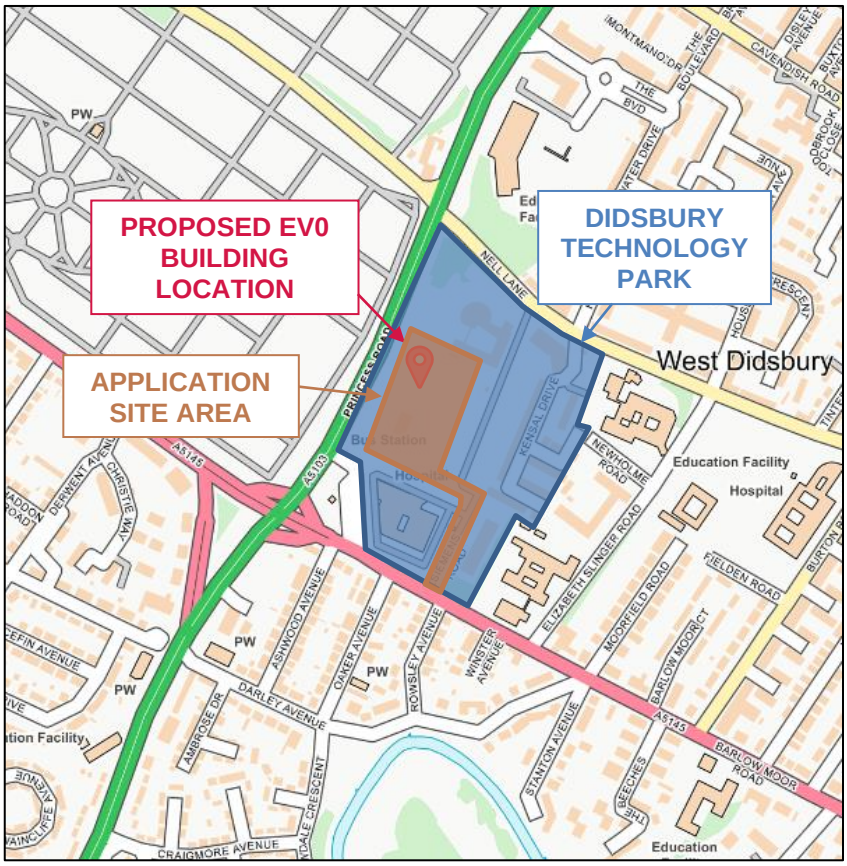


Figure 1.1 – Application Site Location
(Source: OS Maps, 2022, Note: all boundaries are indicative)

1.1.7 A Development Framework for the Siemens Campus was approved by Manchester City Council in November 2014. The development principles outlined in the Framework comprised the retention of the Siemens office building, new commercial development / potential Siemens expansion, residential development and a new hospital.

1.1.8 The land use proposals for the Siemens Campus, as set out in the Framework, are shown in **Figure 1.2** below. Didsbury Technology Park forms part of the commercial zone:

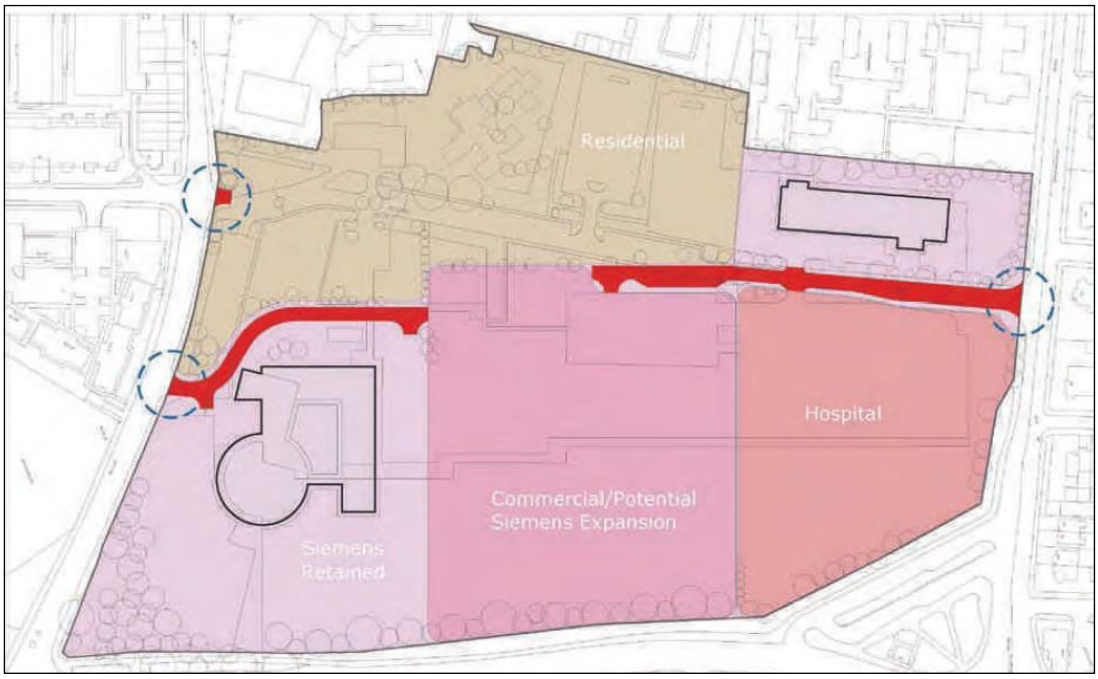


Figure 1.2 – Siemens Campus Land Use Proposals
(Source: Siemens Princess Road Campus – Development Framework, October 2014)

1.1.9 The Siemens Campus site and the overall masterplan visualisation, as they were in 2014, are shown in **Figure 1.3** and **Figure 1.4** respectively below:

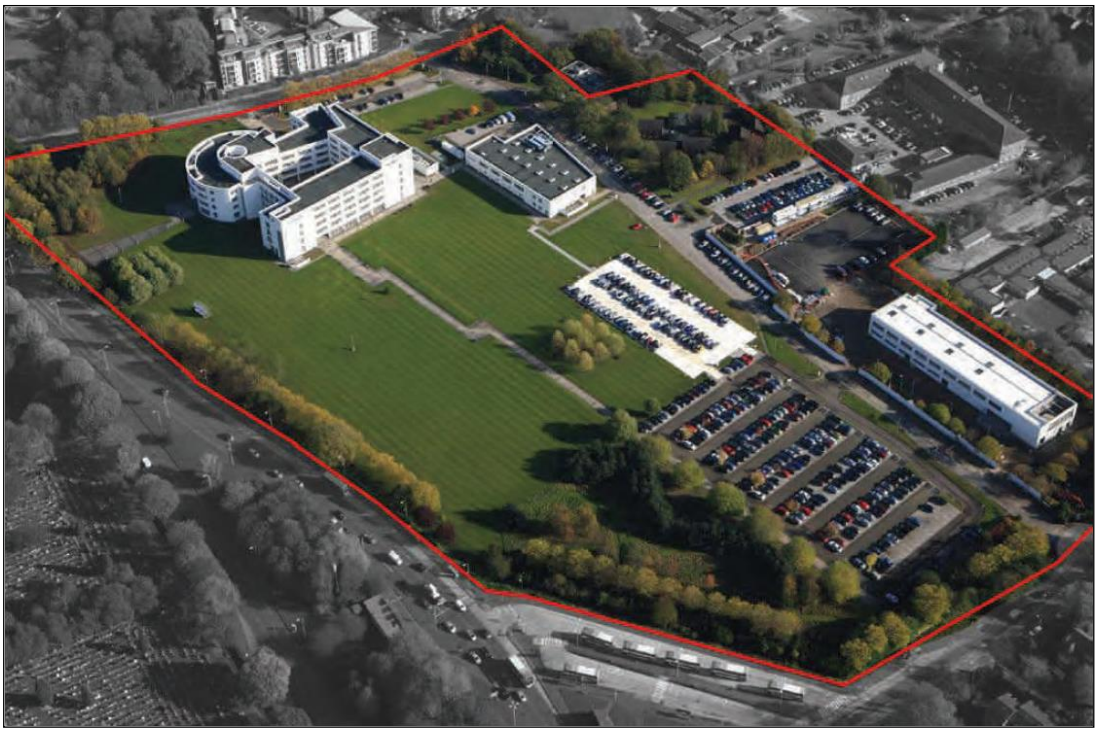


Figure 1.3 – Siemens Campus in 2014
(Source: Siemens Princess Road Campus – Development Framework, October 2014)



Figure 1.4 – Masterplan Visualisation
(Source: Siemens Princess Road Campus – Development Framework, October 2014)

1.1.10 Since the approval of the Framework, the following development has been constructed and occupied at the Siemens Campus:

- New office building in the commercial zone (Didsbury Technology Park, known as the Ohm Building or Building D3);
- New hospital in the hospital zone (Spire Manchester Hospital); and
- New residential development in the residential zone (Green Walk Didsbury).

1.1.11 The Ohm Building was the first office building to come forward within the site as Phase 1 of the commercial development at Didsbury Technology Park.

1.1.12 A detailed planning application has been prepared for Phase 2, comprising The Ev0 Building, associated access, parking, and landscaping.

1.2 Purpose of the Report

1.2.1 This Transport Assessment (TA) has been prepared to inform Highways Officers at Manchester City Council (MCC) and Transport for Greater Manchester (TfGM) with regards to all traffic and transportation matters associated with the development proposals.

1.2.2 The TA should be read in conjunction with the Framework Travel Plan (FTP) that has been prepared to support the planning application (Report Reference: **81025-CUR-XX-XX-T-TP-00002**). The FTP aims to minimise the number of car trips generated by the development and encourage staff and visitors to use sustainable modes of transport.

1.3 Scope of the Report

1.3.1 The information presented in this TA has been prepared following a scoping exercise with Highways Officers at MCC and TfGM. The pre-application discussions focussed on baseline surveys, traffic forecasting, the site access proposals, parking strategy, and the scope of the TA and FTP. On this basis, the TA includes the following information:

- A description of the highway network in the vicinity of the site;
- A review of the collision record in the vicinity of the site for a five-year period;
- A summary of the development proposals, including multi-modal access, parking and servicing arrangements;
- A review of accessibility by sustainable modes of travel;
- Commentary on the highway impact associated with the development proposals;
- The TRICS reports and 2011 Census data used appended to the TA, as requested;
- Information regarding traffic generation, distribution, committed developments and assignment; and

- A summary of relevant transport planning policy.

1.3.2 A key element of this report is the Parking Strategy discussed in **Section 3.** The strategy proposed aims to deliver a solution that provides sufficient parking for the proposed uses on site, whilst also aiming for a long-term change in travel habits towards use of more sustainable modes of travel and reducing the reliance on private car. It is noted that there is capacity to increase on-site parking (if demonstrably required), however the strategy is focussed on reducing demand that could create the requirement for on-street parking.

1.4 Structure of the Report

1.4.1 Following this introduction, **Section 2** of the report provides a description of the existing site location and transport conditions. This includes the local highway network and facilities for pedestrians, cyclists and public transport users. This section also reviews highway safety and existing travel patterns.

1.4.2 The development proposals are presented in **Section 3**, including the parking strategy and access arrangements.

1.4.3 The accessibility of the site by sustainable modes of travel is assessed in **Section 4**.

1.4.1 **Section 5** demonstrates that the development accords with the transport requirements within Building Research Establishment Environmental Assessment Method (BREEAM)'s New Construction guidance (2018).

1.4.2 **Section 6** outlines the traffic forecasting methodology used to establish the likely traffic generation associated with the development proposals and the highway impact, with **Section 7** providing an assessment on the highway impacts.

1.4.3 **Section 8** summarises key national and local transport planning policy, and **Section 9** provides a report summary and conclusions.

2.0 Existing Conditions

2.1 Introduction

2.1.1 The site is situated in West Didsbury, Manchester and located to the east of the A5103 Princess Road; a key arterial road running from Manchester City Centre in the north to the M60 motorway in the south.

2.1.2 This site forms part of the wider DTP, as shown in **Figure 1.1**. The site is bound by Sir William Siemens House to the north, existing car parking and residential development beyond to the east, the Ohm Building and Spire Manchester Hospital to the south, and the A5103 Princess Road to the west.

2.2 Existing Use and Access Arrangements

2.2.1 The DTP is home to various uses; Sir William Siemens House is located to the north of the site, which comprises the Siemens Research and Development Centre, along with the Green Walk Didsbury residential development. Both land uses are accessed via priority junctions on Nell Lane.

2.2.2 Sir William Siemens House is accessed via a ghost-island priority junction approximately 160m to the east of the signalised junction with Princess Road, whilst the residential access is located 70m further east, also comprising a ghost-island priority junction. Both junctions have incorporated pedestrian facilities including dropped kerbs, tactile paving and pedestrian islands. All parking for Siemens and the residential site is accessed from their respective Nell Lane access.

2.2.3 The recently constructed Ohm Building, which forms part of Didsbury Technology Park, is located to the south of the DTP. This building comprises 2,277 sqm GFA of commercial space and associated parking provision is accessed via an internal spine road connecting to the A5145 Barlow Moor Road to the south. This access is shared with the Spire Manchester Hospital and comprises a simple priority T-junction with a STOP line.

2.2.4 The spine road that runs through the site connects to both Nell Lane and Barlow Moor Road, although the road is barrier controlled to manage access for different occupiers. Sir William Siemens House is accessible from both Nell Lane and Barlow Moor Road, whilst the Ohm Building is only accessible from the south via Barlow Moor Road.

2.2.5 The Barlow Moor Road access would also provide vehicular access for all other phases of development at the site.

2.3 Existing Parking Situation

2.3.1 There are different zones of parking provided across the DTP. A summary of the existing parking provision is set out below in **Table 2.1**.

Zone	Allocated To	Existing Car Parking				Location	Access Control
		All Spaces		of which EV spaces	Total		
		Standard	Accessible				
1. Siemens	Siemens	66	7	11 (10 standard, 1 accessible)	73	North of SWSH	None
2. Siemens	Siemens	22	0	8 (standard)	22	East of SWSH	Barriers
3. Siemens	Siemens	46	6	0	52	South of SWSH	Barriers
4. Commercial	Siemens	198	0	0	198	East of the site	Barriers
5. Commercial (DTP)	Siemens	121	0	0	121	Within the site	Barriers
6. Commercial (DTP)	Ohm Building	64	4	0	68	Adjacent to the Ohm Building	Barriers
Total		**517**	**17**	**19** (18 standard, 1 accessible)	**534**		

Table 2.1 – Existing Car Parking Provision

(Note: SWSH = Sir William Siemens House, DTP = Didsbury Technology Park, EV = Electric Vehicle)

2.3.2 **Table 2.1** shows a total of 517 standard car parking spaces and 17 accessible spaces, totalling 534 car parking spaces across the wider DTP (including for Siemens). The number of spaces present in the Didsbury Technology Park element of the commercial zone only, totals 189 spaces, comprising 121 car parking spaces allocated to Siemens and 68 spaces allocated to the Ohm Building. Bruntwood is currently working with Siemens to reduce their allocation in this zone.

2.3.3 The parking zones and locations are illustrated in **Figure 2.1** below:

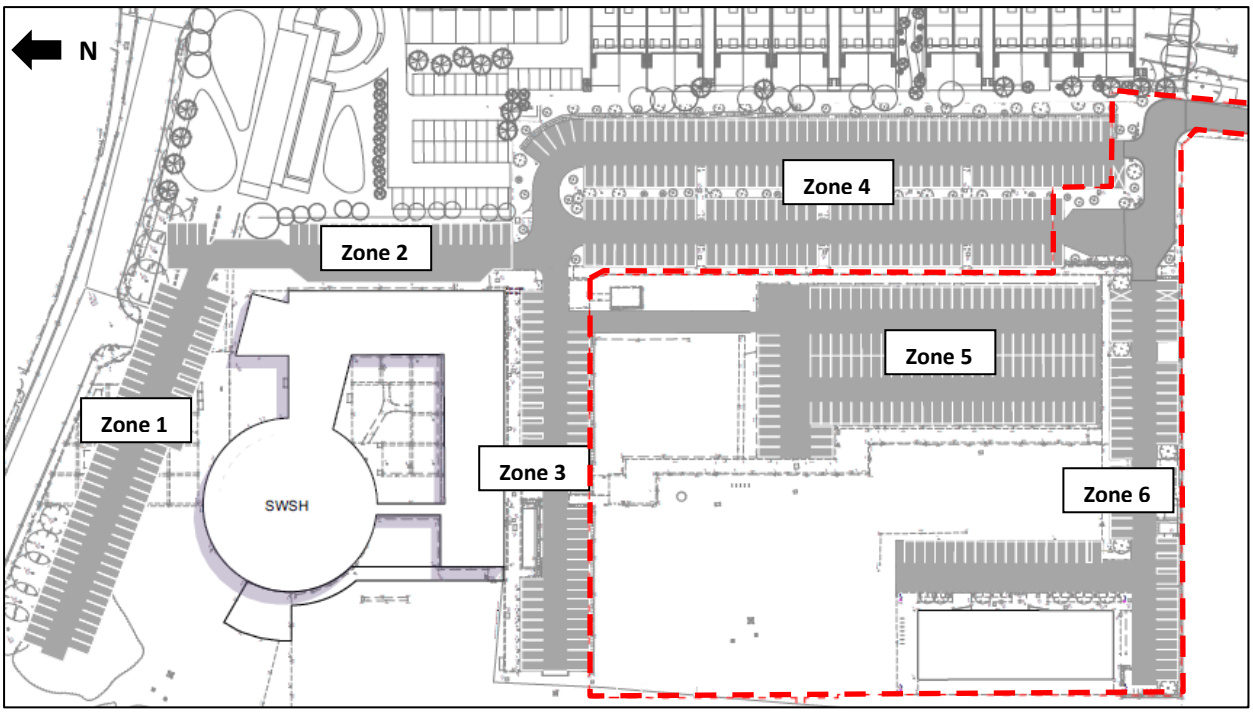


Figure 2.1 – Existing Car Parking Zones – Siemens and Didsbury Technology Park
(Extract from Layer Studio drawing no. 159-LYR-XX-XX-DWG-L-1009)

2.3.4 In addition to the Siemens and commercial zone parking, there is car parking within the hospital zone (c. 256 spaces associated with Spire Hospital Manchester) and the residential zone (c. 189 spaces associated with the Green Walk Didsbury residential development) within the wider DTP.

2.4 Surrounding Highway Network

A5145 Barlow Moor Road

2.4.1 As outlined above, the Ohm Building is accessed via a priority junction with Barlow Moor Road on the northern side of the carriageway.

2.4.2 Barlow Moor Road lies to the south of the site and comprises a two-way single carriageway that is c.10m-wide in the vicinity of the site. Notwithstanding, the usable width of the carriageway differs as there are cycle lanes, bus laybys, and turning lanes located along the road. Barlow Moor Road is a local distributor road providing access to residential properties and local facilities, and benefits from a c. 3m-wide shared footway/cycleway on the northern side of the carriageway and a c. 2m footways on the southern side of the carriageway.

2.4.3 Barlow Moor Road runs along an east to west alignment and links West Didsbury in the east to Chorlton the west. The carriageway benefits from street lighting and is subject to a 30mph speed limit along its length.

2.4.4 Barlow Moor Road benefits from on-road cycle lanes in an eastbound direction in the vicinity of the site, as well as a shared use footway / cycleway along the north side of the road. It is noted that there are no parking restrictions for the majority of Barlow Moor Road adjacent to the site; however, Traffic Regulation Orders (TROs) in the form of double yellow lines (no waiting at any time) are provided at junctions along the road to prevent on-street parking.

2.4.5 There are also several bus stops located along Barlow Moor Road, of which those located closest to the site comprise shelter, a flag and pole, and a notice board detailing bus timetables. The location of the bus stops is also clearly marked on the road. This bus corridor hosts frequent services between Piccadilly Gardens, Stockport, Newton Heath, Chorlton, and The Trafford Centre.

Nell Lane

2.4.6 Nell Lane is a two-way single carriageway road and with width ranging between 10m and 12m in the vicinity of the site. Sir William Siemens House and the residential development (Green Walk Didsbury) are accessed via priority junctions on the southern side of the carriageway.

2.4.7 Nell Lane runs along an east to west alignment and links West Didsbury in the east to the A5103 Princess Road in the west, then continues through the Southern Cemetery to Mauldeth Road West on the outskirts of Chorlton.

2.4.8 The carriageway has c. 2m-wide footways on both sides of the road, benefits from street lighting, and is subject to a 30mph speed limit along its length. Nell Lane has TROs in the form of double yellow lines on both sides of the road, along the length of the carriageway from the junction with Princess Road to where it meets Burton Road. There are also dropped kerbs with tactile paving where minor junctions meet Nell Lane to facilitate pedestrians crossing.

2.4.9 It is noted at the signalised junction with Princess Road, restrictions are in place that prevent right turn movements to the north; only left turns and ahead movements are permitted.

A5103 Princess Road

2.4.10 The A5103 Princess Road is a strategic route connecting to the M60 / M56 motorways to the south and Manchester City Centre to the north. The Princess Road corridor regulates traffic flow along its length with the use of traffic signals. Locally, Princess Road is accessed via signalised junctions with Barlow Moor Road and Nell Lane.

2.4.11 In the vicinity of the site, the carriageway extends along a north-south alignment, with up to three lanes in either direction and additional flared lanes at junction stop lines. The total carriageway width adjacent to the site is approximately 25m, including the central reservation and central hatching, although the road widens to accommodate various turning lanes.

2.4.12 There are wide footways of varying width on either side of the carriageway which are separated from the road via grassed verges. These footways have additional pedestrian infrastructure such as pedestrian guard rails, dropped kerbs, tactile paving, and controlled crossing points as part of junctions to enable pedestrians to cross the road in a safe manner.

2.4.13 Princess Road is subject to a 30mph speed limit in the vicinity of the site, with street lighting provided along both sides of the carriageway. Princess Road benefits from a shared use footway / cycleway along the east side of the road. Advanced cycle stop lanes are also available at the junctions with Barlow Moor Road and Nell Lane.

2.4.14 There are a number of bus stops located along Princess Road hosting services to various destinations in Manchester City Centre and across Greater Manchester. These stops comprise shelter, a flag and pole, and a notice board detailing bus timetables. Furthermore, there is a bus layover/change facility located to the eastern side on the southbound carriageway of Princess Road (to the north of the signalised junction with Barlow Moor Road).

2.4.15 There are various TROs along Princess Road in the form of single (no waiting within certain hours) and double yellow lines, and yellow box junctions. Due to the level of vehicular activity along Princess Road, it is observed that parking does not occur on-street.

2.5 Highway Safety

2.5.1 Personal Injury Collision (PIC) data for the highway network adjacent to the site has been obtained from the TfGM Surveys Research & Analysis Department (SRAD) for the most recent 60 months (October 2016 – September 2021 inclusive).

2.5.2 The extent of the search is shown in **Figure 2.2** below, and a breakdown of the information is contained in **Table 2.3** also below, with the full collision data provided in **Appendix B** to the rear of this report. The search area includes the main junctions of the A5103 Princess Road / Nell Lane and A5103 Princess Road / A5145 Barlow Moor Road, other smaller junctions, and road links in the vicinity of the site.

2.5.3 Records show that there was a total of 31 recorded incidents in the latest five-year period, where 27 were classified as slight (87%) and 4 (13%) were classified as serious. There were no fatal accidents in the study area and period. The collisions are shown in **Figure 2.1** below:

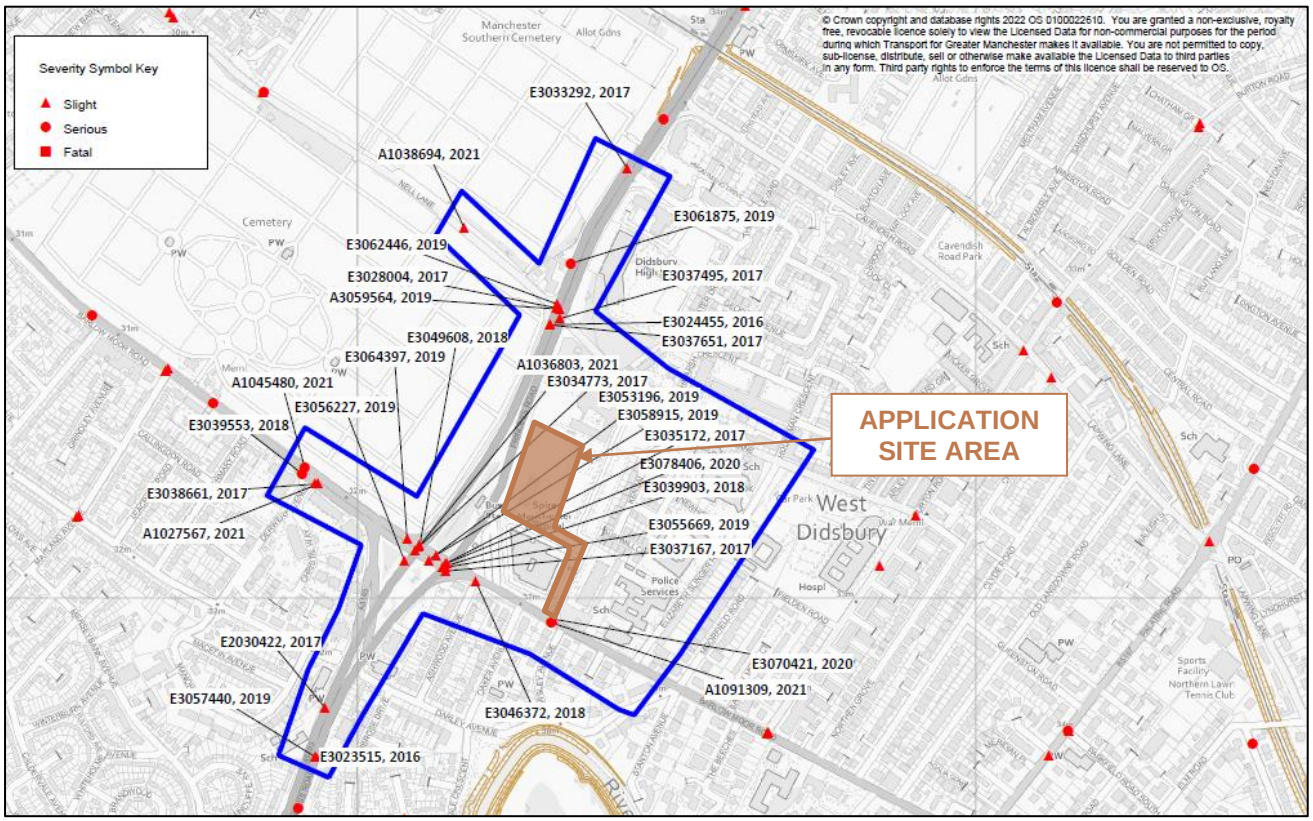


Figure 2.2 – Accident Data Study Area
(Source: Transport for Greater Manchester, 2022)

Junction / Link	Slight	Serious	Fatal	Total
A5103 Princess Road / A5145 Barlow Moor Road	12	0	0	**12**
A5145 Barlow Moor Road / Ashwood Avenue	1	0	0	**1**
A5145 Barlow Moor Road / Siemens Road (Site Access)	1	1	0	**2**
A5103 Princess Road / Nell Lane	6	0	0	**6**
Nell Lane	1	0	0	**1**
A5103 Princess Road / The Boulevard	1	0	0	**1**
A5103 Princess Road	3	1	0	**4**
A5103 Princess Road / Derwent Avenue	2	2	0	**4**
Total	**27**	**4**	**0**	**31**

Table 2.2 – Personal Injury Accident Data Summary

2.5.4 Further detailed collision analysis has been undertaken for all collisions to fully understand any patterns and contributory factors, as set out in **Table 2.4** below:

Ref. No.	Severity	Day and Time	Condi-tions	Description	Contributory Factors
A5103 Princess Road / A5145 Barlow Moor Road:					
E3037167	Slight	2017 Sunday midnight (01:30)	Wet / Dark	Car travelling south-east on Barlow Moor Road turns right onto Princess Road, loses control mid-junction and overturns, hitting road traffic sign and coming to rest on its roof. Casualty: 19 y/o car driver and 20 y/o car passenger.	Car driver – Travelling too fast for conditions, slippery road (due to weather), exceeding speed limit
E3035172	Slight	2017 Tuesday morning (09:44)	Dry / Light	Car 2 travelling south-east on Barlow Moor Road, turns right into path of Car 1 travelling south-west on Princess Road and causes collision. Car 1 flees the scene. Casualty: 35 y/o driver (Car 2).	Car 1 – Poor turn or manoeuvre, failed to look properly, careless / reckless / in a hurry
E3034773	Slight	2017 Tuesday night (21:40)	Wet / Dark	Car travelling north-west on Barlow Moor Road and taxi travelling north-east on Princess Road. Car turns right into path of taxi and collides with taxi. Casualty: 21 y/o taxi passenger.	Car driver – Distraction outside vehicle, failed to look properly
E3039903	Slight	2018 Friday evening (18:40)	Dry / Dark	Police car travelling south-east on Barlow Moor Road turns right across path of Car 2 travelling north-west on Barlow Moor Road and collides mid junction. Casualty: 30 y/o driver (Car 2).	N/A
E3049608	Slight	2018 Wednes-day afternoon (15:00)	Dry / Light	Car 1 travelling north-west on Barlow Moor Road turns right onto Princess Road and collides with the offside of Car 2 travelling south-east on Barlow Moor Road across junction. Casualty: 31 y/o driver and 5 y/o passenger (Car 1), 29 y/o driver (Car 2).	Car 1 – Poor turn or manoeuvre, failed to judge other person's path or speed
E3055669	Slight	2019 Thursday afternoon (14:20)	Dry / Light	Car travelling south-east on Barlow Moor Road turns right onto Princess Road and collides with the offside of Light Goods Vehicle (LGV) travelling north-west on Barlow Moor Road. Casualty: 47 y/o LGV driver.	Car 1 – Disobeyed automatic traffic signal, failed to look properly, failed to judge other person's path or speed, fatigue Car 2 – Disobeyed automatic traffic signal, exceeding speed limit
E3058915	Slight	2019 Tuesday afternoon (15:40)	Dry / Light	Both cars travelling south-east on Barlow Moor Road, Car 1 waiting to go ahead but held up, Car 2 collides with rear of Car 1. Car 2 flees the scene. Casualty: 45 y/o driver (Car 1).	N/A

Ref. No.	Severity	Day and Time	Condi-tions	Description	Contributory Factors
E3053196	Slight	2019 Monday afternoon (12:20)	Dry / Light	3 cars travelling north-west on Barlow Moor Road, Car 1 stationary behind learner driver, Car 2 behind Car 1, Car 3 behind Car 2 hits back of Car 2, pushing it into Car 1. Car 3 flees the scene. Casualty: 39 y/o driver (Car 1) and 55 y/o driver (Car 2).	N/A
E3064397	Slight	2019 Tuesday afternoon (11:49)	Wet / Light	2 cars travelling south-east on Barlow Moor Road approaching junction, nearside of Car 1 collides with offside of Car 2. Casualty: 52 y/o driver (Car 2).	Car 1 – Failed to look properly Car 2 – Rain, sleet, snow, or fog, failed to look properly
E3056227	Slight	2019 Wednes-day afternoon (14:42)	Dry / Light	2 cars travelling north-east on Princess Road, Car 2 slows to stop at red traffic signal, Car 1 behind fails to stop and collides with rear of Car 2. Car 1 flees the scene. Casualty: 65 y/o driver (Car 2).	N/A
E3078406	Slight	2020 Thursday evening (17:00)	Wet / Dark	LGV travelling south on Princess Road towards junction with Barlow Moor Road, Car travelling north on Princes Road turns right onto Barlow Moor Road at filter lane and collides with the front of the LGV. Casualty: 25 y/o car driver.	Car driver – Disobeyed give way or stop sign or markings
A1036803	Slight	2021 Wednes-day morning (10:45)	Dry / Light	Car 2 travelling south-east on Barlow Moor Road, Car 1 travelling north-west on Barlow Moor Road and turns right onto Princess Road, across the path of Car 2. Front of Car 1 collides with offside of Car 2. Casualty: 78 y/o driver and 73 y/o passenger (Car 1).	Car 1 – Failed to judge other person's path or speed, stationary or parked vehicle(s) Car 2 – Stationary or parked vehicle(s)
A5145 Barlow Moor Road / Ashwood Avenue:					
E3046372	Slight	2018 Wednes-day afternoon (15:36)	Dry / Light	Car 1 travelling south-east on Barlow Moor Road turns right towards Ashwood Avenue, across path of Car 2 travelling north-west on Barlow Moo Road. Car 2 brakes but collides with Car 1. Casualty: 55 y/o driver and 12 y/o passenger (Car 1).	Car 1 – Poor turn or manoeuvre, failed to look properly, failed to judge other person's path or speed
A5145 Barlow Moor Road / Siemens Road:					
E3070421	Slight	2020 Saturday morning (10:56)	Dry / Light	Car 1 travelling east on Barlow Moor Road, Car 2 travelling southbound towards junction with Barlow Moor Road. Car 2 exits from Siemens Road; front of Car 2 collides with nearside of Car 1. Casualty: 33 y/o passenger (Car 1).	Car 2 – Failed to look properly, poor turn or manoeuvre

Ref. No.	Severity	Day and Time	Condi-tions	Description	Contributory Factors
A1091309	Serious	2021 Thursday night (21:00)	Wet / Dark	Motorcycle travelling north-west on Barlow Moor Road. Car travelling south-west exits entrance of Spire Hospital to turn right onto Barlow Moor Road and across path of motorcycle. Front of car hits front of motorcycle. Casualty: 39 y/o motorcyclist.	Car 2 – Failed to look properly, failed to judge other person's path or speed Motorcyclist – Travelling too fast for conditions
A5103 Princess Road / Nell Lane:					
E3024455	Slight	2016 Tuesday night (19:40)	Wet / Dark	Heavy Goods Vehicle (HGV) and car travelling north-east on Princess Road in adjacent lanes; HGV swerves to nearside and into path of car, causing a collision. Casualty: 58 y/o car driver.	HGV – Poor turn or manoeuvre, failed to look properly, failed to judge other person's path or speed, careless / reckless / in a hurry, swerved, distraction in vehicle
E3037651	Slight	2017 Saturday afternoon (11:30)	Wet / Light	3 cars travelling north-east on Princess Road. Car 1 slows and stops at red automatic traffic signal, Car 2 collides with rear of Car 1, then Car 3 collides with rear of Car 2. Casualty: 3x 27 y/o passengers (Car 1).	Car 2 – Failed to look properly, rain, sleet, snow, or fog
E3037495	Slight	2017 Tuesday evening (18:34)	Wet / Dark	Car travelling south-east along Nell Lane turns right onto Princess Road, crossing path of motorcyclist travelling north-west on Nell Lane. Motorcyclist collides with car. Casualty: 25 y/o motorcyclist.	Car driver – Failed to look properly, failed to judge other person's path or speed Motorcyclist – Learner or inexperienced driver / rider
E3028004	Slight	2017 Wednes-day morning (08:42)	Dry / Light	2 cars travelling north-east on Princess Road, Car 1 turns right into Nell Lane in front of Car 2, collision occurs. Casualty: 36 y/o driver (Car 2).	Car 1 – Failed to look properly, poor turn or manoeuvre
E3062446	Slight	2019 Saturday morning (10:35)	Dry / Light	2 cars travelling north-east on Princess Road, Car 2 stops mid junction, Car 1 collides with rear of Car 2. Car 1 flees the scene. Casualty: 20 y/o driver (Car 2).	N/A
A3059564	Slight	2019 Monday evening (19:20)	Dry / Light	Car and motorcyclist travelling south-east along Nell Lane and turning right onto Princess Road. Motorcycle is on nearside of car when car commences to turn right, front of car collides with offside of motorcyclist. Casualty: 28 y/o motorcyclist.	Motorcyclist – Poor turn of manoeuvre, careless / reckless / in a hurry

Ref. No.	Severity	Day and Time	Condi-tions	Description	Contributory Factors
Nell Lane:					
A1038694	Slight	2021 Thursday afternoon (15:40)	Dry / Light	2 cars travelling south-west along Nell Lane, Car 1 travelling behind Car 2, collides with rear of Car 2. Casualty: 29 y/o driver (Car 2).	Car 1 – Failed to look properly
A5103 Princess Road / The Boulevard:					
E3033292	Slight	2017 Wednes-day morning (10:13)	Wet / Light	Car 2 travelling north-east on Princess Road towards Manchester along green automatic traffic signal. Car 1 travelling north-west along The Boulevard turns right onto Princess Street on red automatic traffic signal and collides with Car 2. Casualty: 48 y/o driver and 2x 30 y/o passengers (Car 2).	Car 1 – Impaired by alcohol
A5103 Princess Road:					
E3023515	Slight	2016 Thursday evening (18:20)	Wet / Dark	2 cars travelling south-west along Princess Road when Car 2 hits rear of Car 1. Casualty: 20 y/o driver (Car 1).	N/A
E2030422	Slight	2017 Saturday night (20:50)	Dry / Light	3 cars travelling north along Princes Road. Car 1 sights Car 2 (police car) and makes off. Pursuit ensues and Car 1 hits rear of Car 3. Occupants of Car 1 abandon vehicle. Casualty: 25 y/o driver (Car 1), 23 y/o driver, 24 y/o passenger, and 25 y/o passenger (Car 3).	Car 1 – Vehicle in course of crime, aggressive driving
E3057440	Slight	2019 Wednes-day evening (18:08)	Dry / Light	2 cars travelling south-west along Princess Road towards Princess Parkway, Car 1 comes to stop, and Car 2 collides with rear of Car 1. Casualty: 21 y/o driver and 19 y/o passenger (Car 1).	Car 1 – Sudden braking Car 2 – Travelling too fast for conditions
E3061875	Serious	2019 Friday afternoon (17:18)	Dry / Light	Passenger-carrying vehicle (PCV) travelling north-east along Princess Road, pedestrian steps into road to avoid puddle heading north-bound. Collision occurs. Casualty: 28 y/o pedestrian.	PCV – Failed to look properly Pedestrian – Failed to judge vehicle's path or speed
A5103 Princess Road / Derwent Avenue:					
E3038661	Slight	2017 Monday afternoon (12:30)	Wet / Light	Car 1 travelling north-east on Derwent Avenue undertakes u-turn at junction with Barlow Moor Road, back into Derwent Avenue. Car 1 collides with Car 2 travelling north-west on Barlow Moor Road and flees the scene. Casualty: 58 y/o driver (Car 2).	N/A

Ref. No.	Severity	Day and Time	Condi-tions	Description	Contributory Factors
E3039553	Serious	2018 Tuesday afternoon (16:45)	Wet / Dark	Car travelling north-east on Derwent Avenue turns left and collides with pedal cyclist travelling north-west on Barlow Moor Road. Casualty: 39 y/o cyclist.	N/A
A1027567	Slight	2021 Tuesday afternoon (16:00)	Dry / Light	Car and pedal cyclist travelling north-west on Barlow Moor Road approaching junction with Derwent Avenue, car turns left onto Derwent Avenue and its nearside collides with the offside of the cyclist. Car flees the scene. Casualty: 26 y/o cyclist.	N/A
A1045480	Serious	2021 Friday evening (18:40)	Dry / Light	2 cars travelling south-east on Barlow Moor Road approaching junction, Car 2 travelling behind and collides with rear of Car 1. Car 2 flees the scene. Casualty: 59 y/o driver (Car 1).	N/A

Table 2.3 – Description of Collisions

2.5.5 In addition, the incidents noted above have been examined for any common casualty. This is presented in **Figure 2.3** below:

Accidents

Serious	4
Slight	27
Total Accidents	**31**

Casualties By Age and Sex

Severity	0 - 15	16 - 59	60 - 69	70 +	Total
Serious					
Male	0	3	0	0	3
Female	0	1	0	0	1
Total	**0**	**4**	**0**	**0**	**4**
Slight					
Male	0	26	1	1	28
Female	2	10	0	1	13
Total	**2**	**36**	**1**	**2**	**41**
Total Casualties	**2**	**40**	**1**	**2**	**45**

Casualties By Age and Class

Severity	0 - 15	16 - 59	60 - 69	70 +	Total
Serious					
Driver or rider	0	3	0	0	3
Pedestrian	0	1	0	0	1
Total	**0**	**4**	**0**	**0**	**4**
Slight					
Driver or rider	0	25	1	1	27
Veh or pillion pas	2	11	0	1	14
Total	**2**	**36**	**1**	**2**	**41**
Total Casualties	**2**	**40**	**1**	**2**	**45**

Cyclist (Rider and Pillion) and Pedestrian Casualties By Age

Severity	0 - 15	16 - 59	60 - 69	70 +	Total
Serious	0	2	0	0	2
Slight	0	1	0	0	1
Total Casualties	**0**	**3**	**0**	**0**	**3**

Casualties Broken Down By Type

	0-15	16+	Total
Car (Driver)			
Serious	0	1	1
Slight	0	23	23
Total	**0**	**24**	**24**
Car (Passenger)	**0-15**	**16+**	**Total**
Slight	2	12	14
Total	**2**	**12**	**14**
Pedestrian	**0-15**	**16+**	**Total**
Serious	0	1	1
Total	**0**	**1**	**1**
TWPV (Rider)	**0-15**	**16+**	**Total**
Serious	0	1	1
Slight	0	2	2
Total	**0**	**3**	**3**
Cyclist (Rider)	**0-15**	**16+**	**Total**
Serious	0	1	1
Slight	0	1	1
Total	**0**	**2**	**2**
Other (Driver)	**0-15**	**16+**	**Total**
Slight	0	1	1
Total	**0**	**1**	**1**
Total	**2**	**43**	**45**

Figure 2.3 – Common Casualties
(Source: TfGM)

2.5.6 Whilst all collisions are regrettable, the serious incidents appear to have been isolated incidents which were mostly caused by either drivers or pedestrians who failed to look properly / experienced a lapse in judgement. Road layouts were not cited as contributory factors in any of the serious incidents. The collisions were dispersed across the study area with varying circumstances and contributory factors.

2.5.7 The majority of the collisions occurred on the A5103 Princess Road, which carries the highest volume of traffic in the study area. Notably, the majority of the incidents were slight in severity.

2.5.8 This review does not highlight any other clusters of collisions which would warrant further investigation, and there are no concentrations of vehicle collisions or irregular casualties that would suggest an existing safety issue that would be exacerbated by the proposed development.

2.5.9 Whilst there were two recorded collisions at the site access junction on Barlow Moor Road, improvements are proposed to this junction as part of the site access proposals, which would improve

the operation and safety of this junction for all users. Further details of the site access proposals are provided in **Section 3.5** of this report.

2.5.10 Overall, it is concluded that there is no existing safety issue that is likely to be exacerbated by the proposed development.

3.0 Development Proposals

3.1 Introduction

3.1.1 A detailed planning application is being compiled for Phase 2 of the commercial development at Didsbury Technology Park, which comprises a revised Building D1 (now known as The Ev0 Building) and associated access, parking, and landscaping. The Ev0 Building will be a net zero carbon development.

3.2 Development Context

3.2.1 The Ohm Building was the first office building to come forward within the site as Phase 1 of the commercial development at Didsbury Technology Park. The planning application for the Ohm Building (MCC reference: 114283/FO/2016) was accompanied by a TA and FTP. The TA considered the traffic and transportation impacts of the Ohm Building and potential future phases of development at the site within the commercial and other zones.

3.2.2 At that time, the potential future development at Didsbury Technology Park comprised the following:

- A multi-storey car park (MSCP) for up to 526 parking spaces;
- New building with up to 8,201m² of commercial floorspace (Building D1); and
- New building with up to 6,561m² of commercial floorspace (Building D2).

3.2.3 It is noted that the potential future phases did not form part of the previous application (MCC reference: 114283/FO/2016); however, all phases were tested within the Environmental Impact Assessment as a 'worst case' scenario to enable identification of trigger points at which future mitigation might be required, such as junction improvements.

3.2.4 Whilst the updated development proposals remain in accordance with the Development Framework, they have been refreshed to reflect Bruntwood's intention to deliver a net zero carbon development and support MCC's 2038 Net Zero Carbon target.

3.2.5 Sustainability is a key theme that runs through all aspects of the development proposals. From a transport perspective, there is a strong emphasis on active and sustainable travel, promoting low and zero carbon travel choices.

3.2.6 This emphasis will be reflected not only through the development proposals with 'below maximum' car parking provision and enhanced facilities for pedestrians, cyclists, and public transport users, but through a comprehensive and robust FTP that seeks to engender travel behaviour change over time. This presents an opportunity to deliver a truly sustainable development and 'eco site' within the Didsbury

and south Manchester area in the longer-term, with the FTP as the catalyst for the transition away from private vehicles towards more sustainable forms of transport.

3.3 Latest Development Proposals

3.3.1 Phase 2 comprises The Ev0 Building and associated access, parking, and landscaping. The full development description is as follows:

3.3.2 The development comprises the following:

"Construction of a ground plus five storey commercial building for use as offices (Use Class E(c)) with ancillary café on ground floor (Use Class E(b)), erection of ground plus two storey multi-storey car park (Sui Generis) together with landscaping and highway works, a new access and other associated works"

3.3.3 This includes the following:

- Up to 10,152m² of commercial floorspace (an increase of 1,951m² GFA relative to the previous plans); and
- 232 associated car parking spaces comprising a surface level car park (64 spaces) and decked car park (168 spaces).

3.3.4 Following the implementation of The Ev0 Building, an additional building on Plot D2 is envisaged as a future phase of development at the site. This additional building does not form part of this application and Bruntwood has not developed any design details for what they intend to bring forward on the Plot D2 site.

3.3.5 Based on achieving parking objectives (as part of the Framework Travel Plan) with parking ratio objectives of 70% and in the context of all parking space capacity to be delivered by the current proposals, the quantum of Plot D2 floorspace that could potentially be justified in highways terms under currently adopted parking standards would be approximately 5,500m². However, the quantum of justified floorspace will depend on a range of other planning and commercial considerations, including ensuring that any reduction of existing surface parking does not displace parking off-site. As such, the floorspace quantum for Plot D2 is therefore considered as indicative.

3.3.6 Due to the design of the car park deck structure and its deliverability on-site, the proposed deck – inclusive of the 65 additional spaces for when any future development at the DTP comes forward – would be constructed in full as part of the current planning application. As such, the decked car park would comprise 233 spaces – but only 168 spaces would be allocated for use by the current planning application to support The Ev0 Building.

3.3.7 The temporary 'meanwhile' use of the additional 65 spaces is currently being considered by Bruntwood and would be subject to a separate future planning application. At the point at which any scheme comes forward for the Plot D2 building, these parking spaces would be allocated to that building.

3.3.8 The parking provision has been designed to be flexible to ensure that the proposals do not result in off-site parking demand and this will be kept under regular review.

3.3.9 The total number of spaces available for The Ev0 Building, Ohm Building and potential Plot D2 is a c.31% reduction compared with the MSCP that was previously envisaged as part of the masterplan, which reflects the emphasis on sustainability and sustainable forms of transport.

3.3.10 Vehicles will only access The Ev0 Building via the junction with Barlow Moor Road to the south and the internal spine road.

3.3.11 The proposed site layout is included in **Appendix A** to the rear of this report.

3.4 Parking Strategy

Aspirations for the Site

3.4.1 The Development Framework (2014) states that there is a need to balance the amount of car parking with sustainable / alternative travel means in order to make the site commercially attractive whilst ensuring that Campus parking does not spill over into adjacent residential streets. The long-term aspirations for the Campus are to ensure that the masterplan reduces the dominant visual and environmental impact of car parking, in order to maximise the quality of the new commercial campus – Didsbury Technology Park.

3.4.2 As outlined in **Section 3.2**, sustainability is a key theme running throughout all aspects of the development proposals and there is a strong emphasis on active and sustainable travel, promoting low or zero carbon alternatives to travel by the private car. The level of car parking provision to support The Ev0 Building will therefore be below the maximum standard, with a range of sustainable travel initiatives to promote alternative modes via the FTP. It is noted that 20% of parking will be fitted with Electric Vehicle (EV) charge points to further enhance sustainable travel.

3.4.3 There is a longer-term aspiration to develop Didsbury Technology Park as an 'eco site' with a comprehensive and robust FTP that seeks to engender travel behaviour change over time. The aim is to change the modal split of private car usage to more sustainable modes and gradually reduce parking availability and parking ratios across the site.

3.4.4 The aspiration to reduce parking provision over time as the site continues to develop would be carefully managed to ensure sufficient parking supply and prevent overspill onto adjacent streets. The demand

for parking spaces (and the supply) would be managed through the supporting FTP. Notably, the use of the car parks would be monitored and managed as part of annual travel surveys that would be undertaken at the site as part of the FTP.

Parking Standards

3.4.5 MCC Parking Standards, as set out within the Manchester Core Strategy 2012 to 2027, are summarised in **Table 3.1** below:

Land Use	Maximum Number of Car Parking Spaces		Minimum Number of Spaces for:		
	District Centres	Areas not within City Centre or District Centres	Disabled Parking (as a percentage of total spaces)		Cycles
			Up to 200 Spaces	Over 200 Spaces	
B1 – Stand Alone Offices	1 per 35 sqm	1 per 30 sqm	1 bay per disabled employee + 2 bays or 5% of total capacity whichever is greater)	6 bays + 2% of total capacity	1 space per 200m² (minimum of 2 spaces)
B1 – Business Parks	1 per 40 sqm	**1 per 35 sqm**			

Table 3.1 – Parking Standards
(Source: Manchester Core Strategy 2012 to 2027)

3.4.6 The application site forms part of the DTP and the proposed development would form the second building within the commercial zone. On this basis, and given the location of the site, the parking standard for B1 – Business Parks for areas not within the city centre or district centres would apply.

Proposed Parking Provision

3.4.7 As part of The Ev0 Building proposals, it is proposed that 232 car parking spaces would be provided to cater for staff and visitors.

3.4.8 This level of parking equates to 80% of the maximum parking standard as set out within the Manchester Core Strategy – which is designed to be 70% provision (203 dedicated spaces) and 10% overspill parking, which equates to 29 spaces.

3.4.9 This is considered to be appropriate provision with consideration to the aspirations for the site and its accessibility, as set out in **Section 4**, and the proposed range of FTP initiatives to promote sustainable travel. This level of parking provision has been discussed with Highways Officers at Manchester City Council and is agreed in-principle.

3.4.10 The 68 existing spaces for the Ohm Building would be retained, but reconfigured, whilst the parking within Didsbury Technology Park which is currently allocated to Siemens would reduce from the existing

121 spaces to 100 spaces. This is due to reduced demand for parking at the Siemens site, which would continue to be managed by Siemens as part of their ongoing operations.

3.4.11 It is proposed that 59 car parking spaces (20% of the combined parking for The Ev0 Building and potential future Building D2) would be allocated as electric vehicle (EV) charging spaces. The provision of EV spaces would encourage future employees to consider switching to EVs should they still require to rely on the private car, but wish to reduce their carbon footprint.

3.4.12 Upon implementation of the development, 46 spaces (out of the total of 59 spaces) would be served by active EV charging infrastructure (minimum 7kw) to serve The Ev0 Building. This represents 20% of the proposed parking for The Ev0 Building. Passive provision would be made for all remaining spaces with associated enabling infrastructure. The passive spaces would be converted to active spaces (with charge points) over time in response to demand.

3.4.13 Bruntwood are considering potential feasibility of enabling other site users to make use of the proposed EVCs, although this will be subject to commercial and management considerations and cannot be confirmed at this stage.

3.4.14 In addition to car parking, a total of 100 long-stay cycle spaces are proposed for The Ev0 Building for staff. This is approximately double of MCC's minimum standards, which further enhances the sites' sustainability credentials. These spaces would be provided in a secure cycle store within the decked car park. Additional short-stay cycle parking is proposed for visitors to the site, with 10 cycle spaces to be provided near the building entrance.

3.4.15 The secure cycle parking would comprise the following:

- 80 double stacked stands;
- 5 Sheffield stands (10 spaces) inclusive of electric bike charging; and
- 10 lockers for Brompton bikes storage.

3.4.16 Cycle parking also needs to be determined against Building Research Establishment Environmental Assessment Method (BREEAM) requirements, which is based on occupancy numbers. Using BREEAM's default occupancy rate of 0.111, based on the proposed office floorspace of 10,152m^2, the maximum number of occupants could be 1,127.

3.4.17 The cycle parking provision of 110 spaces total (100 long-stay and 10 short-stay) is in line with the BBREEAM requirements as follows:

- **Offices** – Over 400 users, therefore 64 spaces minimum using the BREEAM sliding scale of compliance:
  - 1 – 200 users @ 1 space per 10 users = 20 spaces;

- 201 – 300 users @ 1 space per 15 users = 7 spaces;
- 301 – 400 users @ 1 space per 20 users = 5 spaces; and
- 401+ users @ 1 space per 25 users = 32 spaces.

3.4.18 The above is an estimate of the total allocation of cycle parking spaces as the final occupancy figures at the development have yet to be determined. Occupancy figures are also subject to change due to different factors such as the offices would not be fully occupied at all times due to the implementation of flexible / hybrid working patterns.

3.4.19 There are also areas dedicated to cycle facilities, such as rooms which could provide drying spaces, changing areas, and showers. The minimum standards of cycle facilities will be provided as follows:

- **Changing rooms –** Appropriately sized to suit number of users, including adequate space to hang or store clothing equipment, account for privacy to allow cyclists of either gender to change in private;
- **Drying spaces –** Suitable finishes, adequate heating and ventilation to hang wet clothes with sufficient air movement around them to dry efficiently; and
- **Showers –** 1 shower per 10 cycle storage spaces, catering to both male and female users.

3.4.20 The proposed site layout incorporating The Ev0 Building and the new parking arrangements is shown below in **Figure 3.1**:

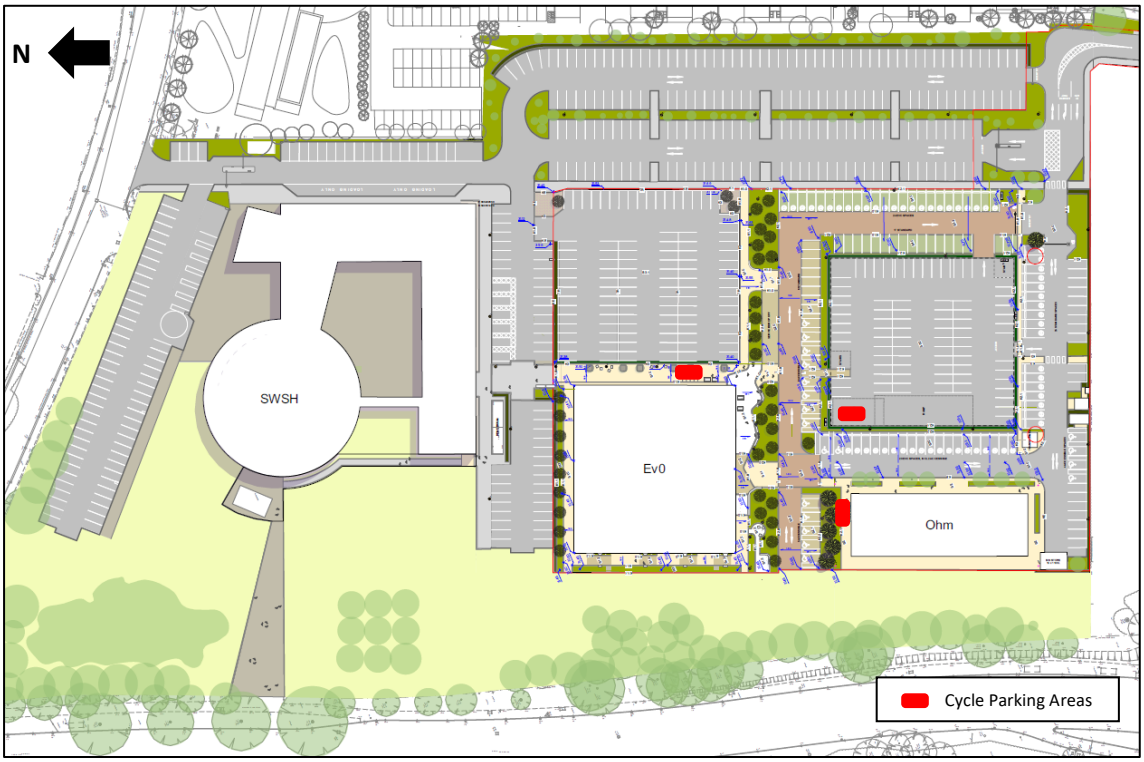


Figure 3.1 – Proposed Site Layout with The Ev0 Building
(Extract from Layer Studio drawing no. 159-LYR-XX-XX-DWG-L-1008)

3.4.21 A summary of the proposed parking provision is set out in **Table 3.2** below:

Zone	Allocated To	Existing Car Parking				Location	Access Control
		All Spaces		of which EV spaces	Total		
		Standard	Accessible				
Siemens	Siemens	66	7	11 (10 standard, 1 accessible)	73	North of SWSH	None
Siemens	Siemens	22	0	8 (standard)	22	East of SWSH	Barriers
Siemens	Siemens	46	6	0	52	South of SWSH	Barriers
Commercial	Siemens	198	0	0	198	East of the site	Barriers
Commercial (DTP)	Siemens	100	0	0	100	Plot for Building D2	Barriers
Commercial (DTP)	Ohm Building	64	4	0	68	Adjacent to the Ohm Building	Barriers
Commercial (DTP)	Ev0 Building	220	12	46 (45 standard, 1 accessible)	232	Within the site	Barriers
Commercial (DTP)	Spaces for Building D2 (not in use)	62	3	13 (12 standard, 1 accessible)	65	Within the site	Barriers
Total		**778**	**32**	**81** (78 standard, 3 accessible)	**810**		

Table 3.2 – Proposed Car Parking Provision

(Note: SWSH = Sir William Siemens House, DTP = Didsbury Technology Park, EV = Electric Vehicle)

3.4.22 A summary of the proposed car parking provision at Didsbury Technology Park only is provided in **Table 3.3** below, with the change in the number of car parking spaces denoted in brackets:

Zone	Allocated To	Existing Car Parking				Location	Access Control
		All Spaces		of which EV spaces	Total		
		Standard	Accessible				
Commercial (DTP)	Siemens	100 (-21)	0 (0)	0 (0)	100 (-21)	Plot for Building D2	Barriers
Commercial (DTP)	Ohm Building	64 (0)	4 (0)	0 (0)	68 (0)	Adjacent to the Ohm Building	Barriers
Commercial (DTP)	Ev0 Building	220 (+220)	12 (+12)	46 (+46)	232 (+232)	Within the site	Barriers

Zone	Allocated To	Existing Car Parking				Location	Access Control
		All Spaces		of which EV spaces	Total		
		Standard	Accessible				
Commercial (DTP)	Spaces for Building D2 (not in use)	62 (+62)	3 (+3)	13 (+13)	65 (+65)	Within the site	Barriers
Total		**446**	**19**	59	**465**		

Table 3.3 – Proposed Car Parking Provision – within Red Line Boundary

3.4.23 In **Section 2.3** earlier in this report, **Table 2.1** showed a total of 189 car parking spaces in the Didsbury Technology Park element of the commercial zone (121 spaces for Siemens and 68 spaces for the Ohm Building.

3.4.24 **Table 3.3** above shows a total of 465 spaces with the proposed development, which equates to a net increase of 276 spaces (-21 spaces for Siemens, no change in spaces for the Ohm Building, 232 spaces for The Ev0 Building and 65 residual spaces/future Plot D2).

Phasing

3.4.25 Following construction of The Ev0 Building, parking usage would be monitored to ensure that the FTP measures are effective and that the 70% parking provision is adequate and managed accordingly. If this is successful, future development may seek to further reduce parking supply for The Ev0 Building to free-up spaces at the site.

3.4.26 In order to effectively implement its sustainable Travel Plan and achieve the most efficient use of parking spaces, Bruntwood is investigating a number of additional measures at Didsbury Technology Park, such as smart parking technology to share spaces between different buildings and maximise the efficiency of the parking supply on site.

3.5 Access

3.5.1 The existing access to the site is via a priority-controlled T-junction with the A5145 Barlow Moor Road and an internal spine road.

3.5.2 Staff and visitors at the proposed development would only access the site by car via Barlow Moor Road, with the Nell Lane access solely for Siemens' use.

3.5.3 Access on foot or via cycle can be undertaken via the proposed improved access on Barlow Moor Road or via the existing access on Nell Lane. Whilst the Nell Lane access by car is only for Siemens use, pedestrians and cyclists can utilise this access and the subsequent internal routes to access The Ev0 Building.

3.5.4 Due to the increase in pedestrian, cycle and vehicular movements associated with the proposed development, Curtins has prepared an improvement scheme, whereby the existing access would be upgraded to a signal-controlled junction. This would include signalised crossing facilities and advanced cycle stop lines on the northern and western arms of the junction, and the provision of ghost island right turn lanes for general traffic. The existing footways on the internal spine road would be retained to facilitate safe pedestrian movement to the site.

3.5.5 Following pre-application discussions with Highways Officers at MCC and TfGM, the pedestrian crossings are proposed as straight-across crossings to promote active travel.

3.5.6 The proposed access is shown in **Drawing 081025-CUR-XX-00-D-TP-75001** to the rear of this report, and the capacity of the junction is assessed in **Section 6.2**.

3.5.7 Furthermore, within the site itself, a dedicated pedestrian crossing will be provided for those walking from Barlow Moor Road to The Ev0 Building.

3.5.8 The internal access road into the site has been designed to permit safe movement of all vehicles likely to utilise the site, with the internal layout subject to barrier controls to ensure that only site users are permitted within the site.

3.5.9 The internal layout will facilitate all servicing and delivery requirements, with a loading bay provided to the south-east of The Ev0 Building.

3.5.10 All vehicles would enter and exit the site via the proposed signalised access on Barlow Moor Road. In terms of servicing, **Drawing 081025-CUR-00-XX-D-TP-05004** included to the rear of this report, demonstrates the swept path analysis with safe access and egress of the proposed access for a large refuse vehicle. The vehicle would enter the site and dwell in the vicinity of The Ev0 Building, then navigate the internal layout and exit the site in a forward gear without conflict; this is shown in **Drawing 081025-CUR-00-XX-D-TP-05001.**

3.5.11 The accessibility of the site and the parking areas for a large car is shown in **Drawing 081025-CUR-00-XX-D-TP-05002** included to the rear of this report. The vehicle is shown to satisfactorily navigate the site.

3.5.12 In terms of deliveries, a 10m rigid vehicle would enter the site, utilise the proposed loading bay to the south-east of The Ev0 Building, navigate the internal layout in a clockwise movement and exit the site in a forward gear. This is shown in **Drawing 081025-CUR-00-XX-D-TP-05006.**

3.5.13 Finally, **Drawing 081025-CUR-00-XX-D-TP-05005** demonstrates the required movements for a fire tender accessing the site at various locations, then egressing in a forward gear.

3.5.14 All access points will comprise either level access, or steps with ramped alternatives, which would be suitable for all types of users regardless of the level of mobility or visual impairment.

3.5.15 Overall, the site layout has been designed with safe and suitable access for all road users. A Stage 1 Road Safety Audit (RSA) will be undertaken following agreement of the proposed access arrangement with MCC Highways and TfGM.

3.5.16 It should be noted that an additional pedestrian/cycle access was previously explored, which linked the site to Princess Road in the west. However, this land is not within Bruntwood's control and therefore does not form part of the current proposal. Notwithstanding, this remains an aspiration and will be considered as part of future phases of development.

3.6 Travel Plan

3.6.1 A comprehensive and robust Framework Travel Plan (FTP) (Report Reference: **081025-CUR-XX1-XX-T-TP-00002**) has been prepared as part of the planning submission for The Ev0 Building to encourage travel by active and sustainable modes, namely walking, cycling, public and shared transport, and minimise the use of the private car. In turn, the Travel Plan will be an important tool in managing demand for car parking at the site and promoting low and zero carbon modes of transport.

3.6.2 The approach to the Travel Plan and the potential initiatives have been discussed with Highways Officers at MCC and TfGM as part of scoping discussions.

3.6.3 The measures are presented as 'short-to-medium term' which would be delivered during the operation of The Ev0 Building, with 'long term' measures also included as potential future initiatives to support potential future development at the site (Building D2) and the shift to sustainable modes of transport over time.

3.6.4 The short-to-medium term measures comprise the following:

- Travel Plan Coordinator;
- Business travel policies;
- Needs-based parking;
- Car park access control;
- Car share scheme;
- Electric vehicle charging spaces;
- Dedicated pick-up/drop-off point;
- Customer Handbook/Welcome Pack;
- Dedicated travel webpage;
- Continuous marketing and promotion;

- Sustainable travel information for visitors;
- Pedestrian facilities;
- Showers and lockers for active travel users;
- Signage for pedestrians and cyclists;
- Cycle parking;
- Hire/pool bikes available on site;
- Cycle training and workshop;
- Cycle to Work scheme & equipment;
- Season ticket loans;
- Amenities available on site; and
- Flexible working.

3.6.5 Additionally, the long-term measures include the following:

- Mobility Forum;
- Targeted reduction in parking availability;
- Smart parking technology;
- Monitor on and off-site parking;
- Electronic community screens;
- Promotion as an ‘eco site’;
- Cycle hub; and
- Responding to changing travel behaviour.

3.6.6 The FTP has been prepared with reference to the FTP that was approved in relation to the Ohm Building. The new Framework Travel Plan does however represent a step-change in ambition to reflect the ‘eco site’ aspiration for the site and to deliver a truly sustainable development.

4.0 Accessibility by Sustainable Modes of Travel

4.1 Introduction

4.1.1 A key element of national and local policy is to ensure that new developments are located in areas where alternative modes of travel are available. This supports the aims of integrating planning and transport, providing more sustainable transport choices, and reducing overall travel and car use.

4.1.2 The accessibility of the proposed development is considered in this context for the following modes of travel:

- Pedestrian Accessibility;
- Accessibility by Cycle; and
- Accessibility by Public Transport.

4.2 Pedestrian Accessibility

4.2.1 Research has indicated that acceptable walking distances depend on a number of factors, including the quality of the development, the type of amenity offered, the surrounding area, and other local facilities. The Chartered Institution for Highways and Transportation (CIHT) document entitled *'Providing for Journeys on Foot'* suggests walking distances which are relevant to this planning application. These are reproduced in **Table 4.1** below.

	Town Centres (m)	Commuting / School/ Sightseeing (m)	Elsewhere / Local Services (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

Table 4.1 – CIHT Suggested Acceptable Walking Distances

4.2.2 To assist in summarising the accessibility of the site by foot, distances of 500m, 1,000m and 2,000m, which are termed *'Desirable'*, *'Acceptable'* and the *'Preferred Maximum'* by the CIHT for commuting trips, have been considered. These are a good approximation for the majority of trips associated with the development.

4.2.3 Guidance from the Building Research Establishment Environmental Assessment Method (BREEAM) UK New Construction 2018 guide states that Transport Assessments and Travel Plans should include reporting on the number and type of amenities within 500m of the site (based on current Tra 02 criteria) to obtain credits. The number and type of existing accessible amenities within 500m of the site can be summarised in **Table 4.2** below:

No.	Amenity	BREEAM Criteria / Type	Proximity to Site (m)
1	Lancasterian School, The Birches	Child care facility or school	200 – 500
2	Barlow Moor Filling Station	Appropriate food outlet	500
3	RxBox CrossFit Didsbury	Access to a recreation or leisure facility for fitness or sports	500

Table 4.2 – Number and Type of Existing Accessible Amenities within 500m of the Site

4.2.4 The amenities accessible within 500m of the site are considered further in **Section 5** of this report.

4.2.5 The site is located within a wider residential area of Manchester, with West Didsbury situated to the immediate east and Chorlton located a short walk to the west. In addition to those facilities in **Table 4.2** above, many residential streets can be accessed.

4.2.6 Additional residential areas and associated facilities / amenities can be accessed within 1,000m – 2,000m of the site, including parts of Withington, Didsbury, and Whalley Range in addition to all of West Didsbury and Chorlton. Local amenities and facilities associated with residential areas in the vicinity of the site include convenience stores, hospitals, places of worship, places of education, local shops, hot food takeaways and restaurants that future staff and visitors could utilise.

4.2.7 As outlined in **Section 2.3**, footways in the area are of good quality, well-lit and at least 2m wide. There are dropped kerbs, tactile paving, and pedestrian guard rails at key junctions, such as those on the A5103 Princess Road. The walking environment is enhanced by the fact that 20-30mph speed restrictions are in operation along most of the road corridors.

4.2.8 Bus stops are located at a short walk from the site on Princess Road and Barlow Moor Road, whilst the Withington Metrolink stop is situated at a c. 700m walk to the north of the site.

4.2.9 Overall, it is considered that the site is situated within a highly accessible area, with a number of complementary land uses within walking distance.

4.3 Cycle Accessibility

4.3.1 In order to assist in assessing the accessibility of the site by cycle, an 8km cycle catchment for the site has been considered. The 8km catchment (5 miles) considered to be the maximum acceptable cycling distance for most people and is based on the 2019 National Travel Survey statistics, which demonstrates that 82% of cycling trips were under 5 miles (8km).

4.3.2 The National Model Design Code – Part 2 (DLUHC, 2021) also references this distance, expressing *"the aim that walking and cycling should be the first choice for short local journeys, particularly those of 5 miles or less."* The average cyclist travels at approximately 12mph, according to CD195 of the Design Manual for Roads and Bridges, so they could travel 5 miles in approximately 25 minutes.

4.3.3 The 8km catchment encompasses all of West Didsbury and Chorlton including key transport links, convenience stores, bars, restaurants, and leisure centres. The catchment also extends as far as Manchester city centre to the north, Heaton Chapel to the east, Wythenshawe to the south, and Sale and Stretford to the west.

4.3.4 The site is well situated to benefit from existing cycle provision, with the wider local highway network in the vicinity of the site comprising on-road cycle facilities such as cycle lanes along Barlow Moor Road for ease of cycling on the carriageway, and shared footway / cycleways along Barlow Moor Road and Princess Road offering traffic-free cycling. The local cycle network in the vicinity of the site is shown in **Figure 4.1** below:

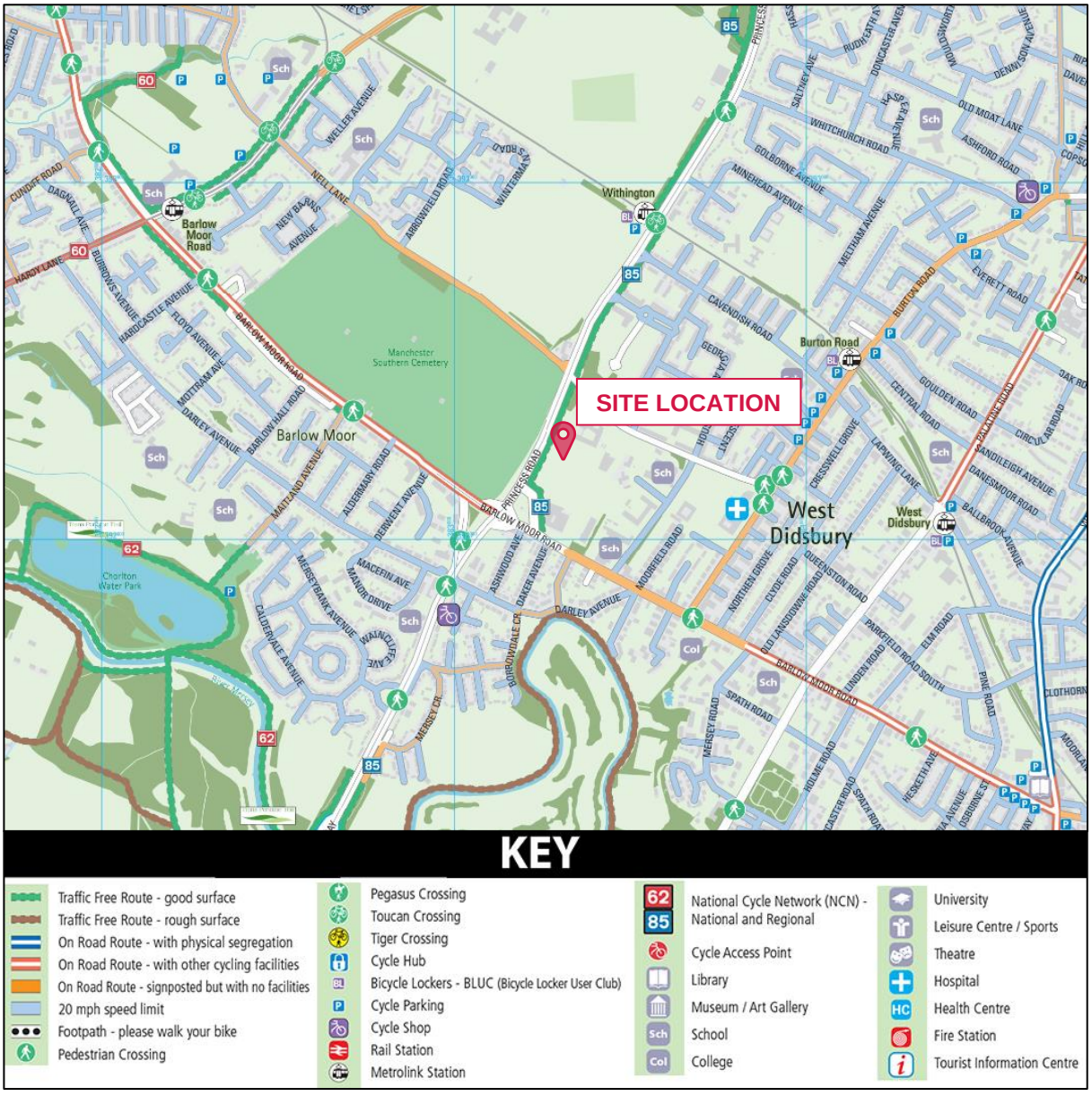


Figure 4.1 – Local Cycle Network
(Source: TfGM, 2022)

4.3.5 Route 85 on the National Cycle Network (NCN) runs along the western boundary of the site, which takes the form of a 3m wide shared footway / cycleway running along the eastern side of Princess Road. This route travels in a southerly direction the via the Southern Cemetery Bus Station, utilising cycle lane provision on Barlow Moor Road, before travelling on Rowsley Avenue, Borrowdale Crescent and Mersey Crescent and continuing along Princess Road.

4.3.6 The path then becomes entirely traffic-free on approach to the River Mersey bank, where Route 62 lies. Route 62 extends to Chorlton and Stretford to the west, and to Northenden and East Didsbury to the east. Towards the north of the site, Route 85 also connects with Route 6 at Whalley Range, which continues via on and off-road routes towards Manchester City Centre and Radcliffe further beyond.

4.3.7 Cyclists can also utilise the existing local roads to gain access to the site; it is considered that local roads are of sufficient width with low speed limits to encourage staff and visitors to cycle.

4.3.8 The local cycle network shown above is also a part of Greater Manchester's cycling and walking infrastructure proposal, named the "Bee Network". The Bee Network comprises signed routes that mark the most direct and pleasant way to navigate an area on foot or by bike.

4.3.9 **Figure 4.2** below shows Bee Network improvements in development in the vicinity of the site. These include the Chorlton Busy Beeway (Area 4) along Barlow Moor Road from Sandy Lane to Hardy Lane, upgrades to the existing Fallowfield Loop Line (Floop) to the north of the site, Parsonage Road Safer Streets (an active neighbourhood plan), and the Sale Water Park scheme, providing a segregated cycle route along Northenden Road and Old Hall Road.

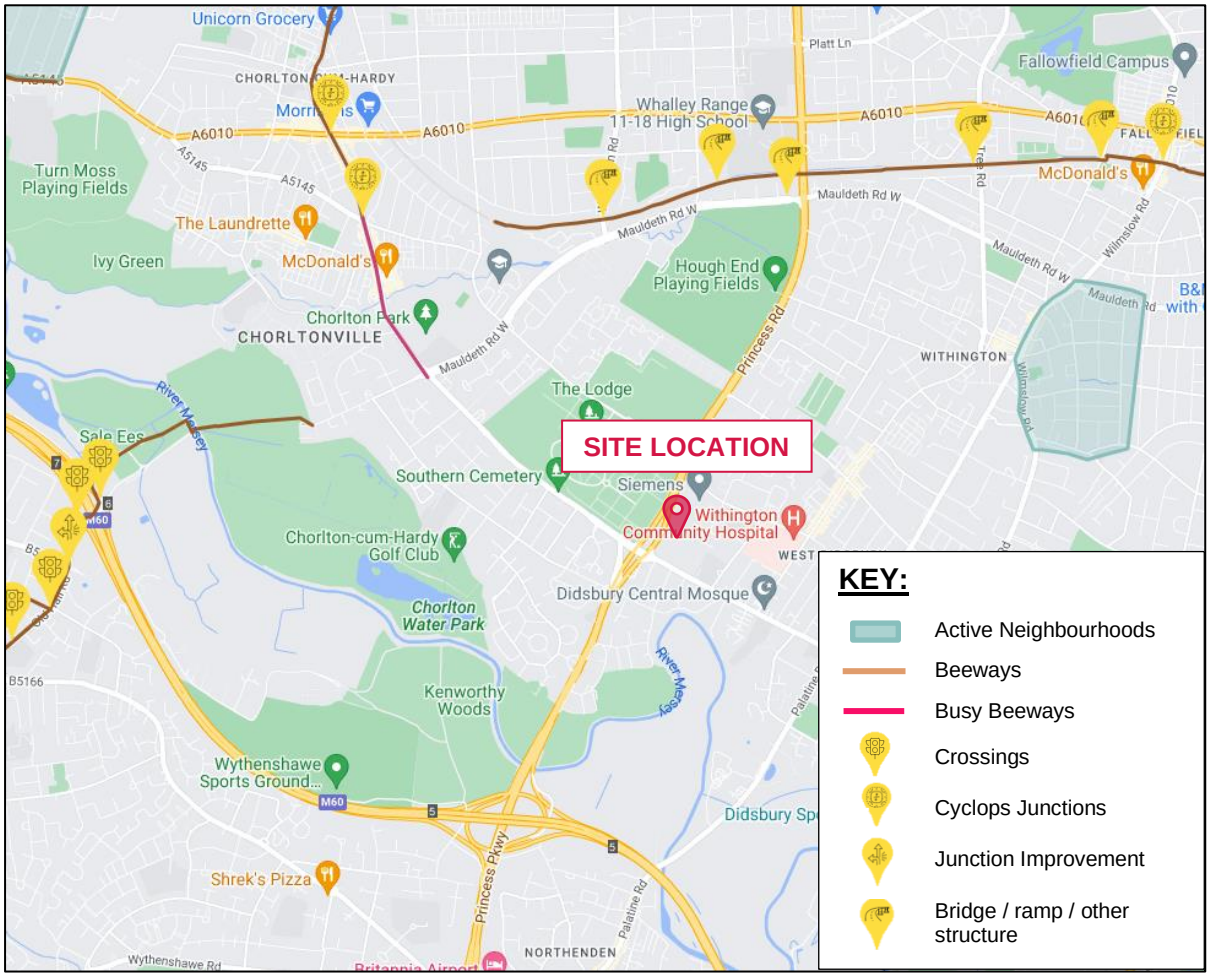


Figure 4.2 – Bee Network Map
(Source: Bee Active and Google Maps, 2022)

4.3.10 The site is therefore ideally placed to take advantage of the cycle connections around West Didsbury and Chorlton. Furthermore, the development will provide secure cycle parking spaces for both staff and visitors (located near the entrance to the building) to encourage cycling. In summary, it is considered that cycling is a highly realistic mode of travel to and from the site.

4.4 Public Transport Accessibility

4.4.1 Developed by Transport for Greater Manchester (TfGM), Greater Manchester Accessibility Levels (GMAL) are a measure of the accessibility of a point to both the conventional public transport network (i.e., bus, Metrolink and rail) and Greater Manchester's Local Link (flexible transport service), considering walk access time, service availability, and average waiting time.

4.4.2 The method is essentially a way of measuring the density of the public transport provision at any location within the Greater Manchester region. The accessibility index score is categorised into eight levels (1 to 8), where level 8 represents a high level of accessibility (described as 'excellent') and level 1 a low level of accessibility (described as 'very poor').

4.4.3 The site is located in an area with a GMAL rating of 7. This demonstrates that the site offers very good levels of multi-modal accessibility to Manchester city centre and across Greater Manchester.

4.4.4 Accessibility by bus, rail and Metrolink are considered further below, with a local public transport network map included in **Figure 4.3** below:

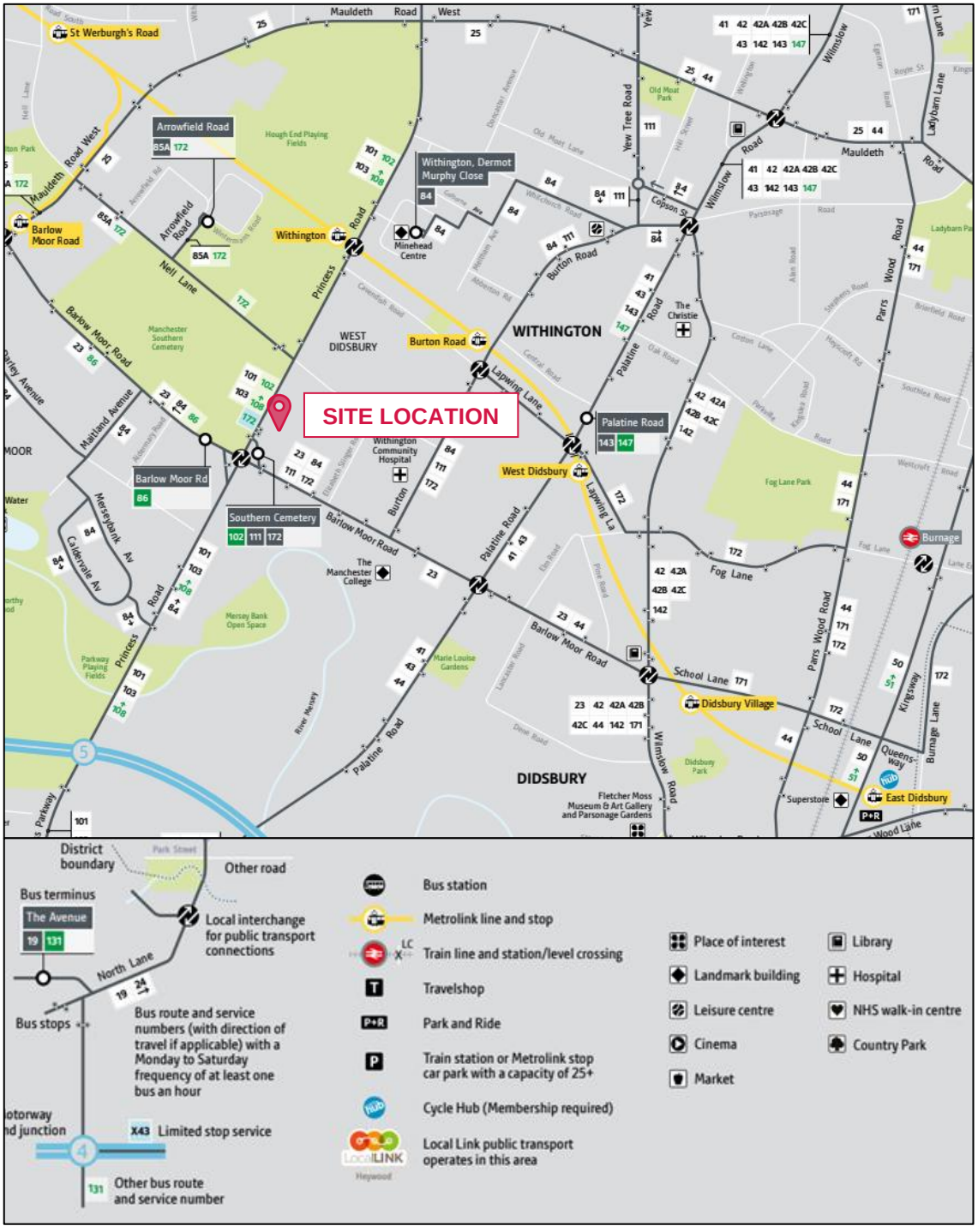


Figure 4.3 – Public Transport Network in the Vicinity of the Site
(Source: TfGM, 2022)

Bus Accessibility

4.4.1 Guidance within the National Model Design Code – Part 2 (DLUHC, 2021) states: *"Generally, people are prepared to walk further to a railway station or tram stop (10 minutes) [800m walking distance] than to a bus stop (5 minutes) [400m walking distance]."* These distances are also cited in the CIHT document *'Planning for Walking'* (2015).

4.4.1 The nearest bus stop to the site is located within a 350m walk from the centre of the site, along Barlow Moor Road, followed by the bus stop on the southbound lane of Princess Road, and the Southern Cemetery Bus Circle and Barlow Moor Road (c. 450m and 500m respectively). **Table 4.3** below details the services that call at this stop, and their associated frequencies:

Bus Service	Route	Peak Hourly Frequency		
		Mon – Fri	Sat	Sun/Hols
From A5145 Barlow Moor Road:				
23	Stockport – Stretford – Urmston – The Trafford Centre	20 mins	20 mins	30 mins
84	Withington – West Didsbury – Mersey Bank Estate – Chorlton	Hourly from 09:00 – 15:00	No Service	No Service
111	Chorlton – Withington – Moss Side – Piccadilly Gardens	12 mins	12 mins	20 mins
172	Chorlton – Didsbury – Gorton – Droylsden – Newton Heath	Hourly	Hourly	Hourly
From A5103 Princess Road SB (172 as above, with the addition of):				
101	Wythenshawe – Baguley – Moss Side – Piccadilly Gardens	15 mins	15 mins	20 mins
102	Chorlton – Withington – Moss Side – Piccadilly Gardens	No Service	No Service	Hourly
103	Manchester Airport – Wythenshawe – Piccadilly Gardens	30 mins	30 mins	Hourly
From Southern Cemetery Bus Circle (111 and 172 as above).				

Table 4.3 – Summary of Bus Service Frequencies in the Vicinity of the Site

4.4.2 These stops provide frequent access to and from residential areas, as well as larger public transport interchanges (such as Manchester city centre) all 7 days of the week. It is considered that the site is accessible by bus.

4.4.3 It is noted that the provision of bus services will change over time in response to current circumstances. The bus times are accurate at the time of writing, whereas up-to-date bus times can be found on TfGM's website: tfgm.com/public-transport/bus.

4.4.4 Overall, the site is highly accessible by bus with a large number of services available within walking distance of the site.

Rail Accessibility

4.4.5 The Chartered Institution of Highways and Transportation (CIHT) document, *'Planning for Public Transport in Developments'* notes that those travelling to a site by rail will typically be prepared to walk further to the site than those travelling by bus, with a preferred distance of 800m.

4.4.6 The East Didsbury rail station is located c. 4km to the south-east of the site. This lies outside the CIHT recommended distance; however, the station is also served by the no. 23 bus service, the **Pink Line** from Withington Metrolink station, and can also be accessed by cycle. Northern Rail offers space for up to two bikes on all trains for no extra charge, however these are allocated on a first-come, first-serve basis. There is step-free access across the whole station in the form of ramps to the platforms, along with a ticket hall at the northbound platform (Platform 1), and seating on both platforms.

4.4.7 There is also a station car park adjacent to the southbound platform (Platform 2) with 15 spaces including 2 accessible spaces, operating 24 hours a day with no charge for parking.

4.4.8 A summary of rail services from the rail station is outlined in **Table 4.4** below:

Destination	Service Frequency		
	Peak Weekday	Peak Saturday	Peak Sunday
Manchester to Manchester Airport local stopping services and Manchester to Crewe Calling at but not limited to: Manchester Oxford Road, Manchester Piccadilly, Mauldeth Road, East Didsbury, Manchester Airport, Wilmslow, Alderley Edge, Crewe	Every 30 mins	Hourly	Hourly

Table 4.4 – Summary of Rail Services calling at East Didsbury

4.4.9 The trains that service East Didsbury rail station regularly operate 7 days a week to a number of different locations and residential areas within Greater Manchester and the North West; this provides frequent access for users of the site and is a viable alternative to private car use.

4.4.1 It is noted that the provision of rail services will change over time in response to current circumstances. The rail frequencies are accurate at the time of writing, whereas up-to-date rail times can be found on Northern Rail's website: northernrailway.co.uk/travel/timetables.

Metrolink (Light Rail) Accessibility

4.4.2 The nearest Metrolink stop is Withington, located c. 700m to the north-west of the site. There is step-free access to both platforms in the form of lifts and ramps. **Figure 4.4** below shows the Greater

Manchester Metrolink network. The **Pink Line** between East Didsbury and Rochdale, and the **Brown Line** between Rochdale Town Centre and East Didsbury call at this stop.

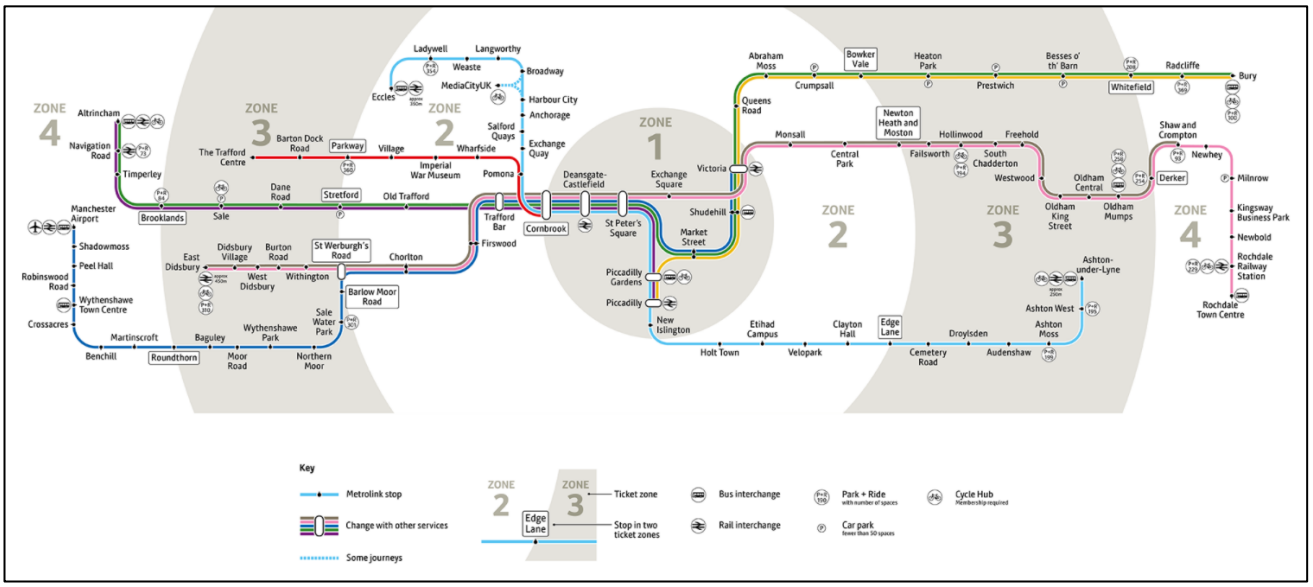


Figure 4.4 – Greater Manchester Metrolink Network
(Source: TfGM, 2022)

4.4.3 All lines run at an approximate frequency of every 12 minutes between 06:00 – 00:00 on Mondays to Saturdays, and 07:00 – 00:00 on Sundays.

4.4.4 The start and end times for the specific station that staff and visitors wish to call at will change over time in response to current circumstances. The Metrolink frequencies are accurate at the time of writing, whereas up-to-date times can be found on the Metrolink website at: tfgm.com/public-transport/tram/tram-times.

4.4.5 Overall, the Metrolink network is available within walking distance of the site and is readily accessible by staff and visitors at the site.

BREEAM Public Transport Accessibility Index (AI)

4.4.6 Guidance from the BREEAM UK New Construction 2018 states that Transport Assessments and Travel Plans should include reporting on the public transport accessibility (i.e., Tra 01 – proximity to train, bus etc. stops and frequency of services) to obtain credits. This includes calculation of the Accessibility Index (AI) of the site.

4.4.7 Based on Tra 01 standards, a compliant transport node is defined as any bus service with a stop within 650m and any railway station within 1,000m of the assessed building's main entrance, measured via a safe pedestrian route (not 'as the crow flies'). The bus stop ("node") located within this distance and their respective service frequencies per hour are as follows in **Table 4.5**. For the purposes of this

assessment, multiple services (i.e., services that operate from more than one node within proximity of the site / the same bus/rail serving two separate stops / stations) have been considered only once at the node in closest proximity to the site.

Service and Frequencies per Hour		Node and Distance to Node (m)			
		Barlow Moor Road (350m)	Princess Road SB (450m)	Southern Cemetery Bus Circle (500m)	Withington (700m)
Bus	23	3	-	-	-
	111	5	-	-	-
	172	1	-	-	-
	101	-	4	-	-
	103	-	2	-	-
Metrolink	East Didsbury to Rochdale	-	-	-	5
Accessibility Index (AI)		**7.34**			

Table 4.5 – BREEAM Public Transport Accessibility Index (AI) Calculator

4.4.8 The AI calculation above is considered further in **Section 5** of this report.

4.4.9 As noted earlier, a range of measures will be implemented as part of the accompanying FTP to encourage sustainable travel. The preceding summary of multi-modal accessibility also demonstrates that public transport services would be available for staff and visitors at the site.

4.5 Summary

4.5.1 This section has demonstrated that the site is highly accessible by active and sustainable modes of transport; the surrounding area exhibits excellent levels of pedestrian and cycling infrastructure, and there are a number of public transport opportunities within walking distance of the site, particularly bus and Metrolink services.

4.5.2 The site is well located to take advantage of the excellent existing public transport facilities, including both bus and Metrolink, in addition to walking and cycling opportunities, which will therefore provide realistic and viable alternatives to travel by car.

5.0 BREEAM Compliance

5.1 Summary

5.1.1 The development would be assessed under Building Research Establishment Environmental Assessment Method (BREEAM) 2018 standards and would seek to demonstrate compliance by obtaining a number of credits. The assessment categories pertaining to traffic and transport, the relevant sections where they are provided, together with credits they obtain, are summarised in **Table 5.1** below:

BREEAM Category	Description	Signposts	No. of Credits
Tra 01	**Transport Assessment and Travel Plan:** 1. No later than Concept Design stage, undertake a site-specific transport assessment (or develop a travel statement) and draft travel plan, which can demonstrably be used to influence the site layout and built form. 2. The site-specific travel assessment (or statement) shall cover as a minimum: • If relevant, travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities; • Predicted travel patterns and transport impact of future building or site users; • Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors; • Reporting of the number and type of existing accessible amenities within 500m of the site; • Disabled access accounting for varying levels and types of disability, including visual impairment; • Calculation of the existing public transport Accessibility Index (AI); and • Current facilities for cyclists. 3. Following a transport assessment (in accordance with the requirements set out in criteria 2), develop a site-specific travel plan that provides a long-term management strategy which encourages more sustainable travel. The travel plan includes measures to increase or improve more sustainable modes of transport and movement of people and goods during the building's operation. 4. If the occupier is known, involve them in the development of the travel plan. 5. Demonstrate that the travel plan will be implemented and supported by the building's management in operation.	This document (TA) TBC in Travel Surveys Section 6 of TA Section 2 of TA Section 4 of TA Section 3 of TA Section 4 of TA Section 2 of TA Framework Travel Plan (FTP) provided in 81025-CUR-XX-XX-T-TP-00002 FTP has been reviewed by Bruntwood Section 9 of FTP	**2**
Tra 02	**Sustainable Transport Measures:**		

BREEAM Category	Description	Signposts	No. of Credits
	1. Prerequisite: Achieve criteria 3–5 in the Tra 01 Transport Assessment and Travel Plan credit.	This document (TA)	
	2. Identify the sustainable transport measures as per Table 7.4 in BREEAM guidance.		*Points:*
	• The existing AI calculated in Tra 01 ≥ 8;	Existing AI is 7.34	*0*
	• Demonstrate an increase over the existing Accessibility Index through negotiation with local bus, train or tram companies to increase the frequency of the local service provision for the development; OR • Demonstrate an increase over the existing Accessibility Index. This could be through provision of a diverted bus route, a new or enhanced bus stop, or other similar solutions; OR • Provide a dedicated service, such as a bus route or service.	-	*0*
	• Provide a public transport information system in a publicly accessible area, to allow building users access to up-to-date information on the available public transport and transport infrastructure. This may include signposting to public transport, cycling, walking infrastructure or local amenities;	Section 7 of FTP	*1*
	• Provide electric recharging stations of a minimum of 3kW for at least 10% of the total car parking capacity for the development;	Section 3 of TA	*1*
	• Set up a car sharing group or facility to facilitate and encourage building users to car share; AND • Raise awareness of the sharing scheme with marketing and communication materials; AND • Provide priority spaces for car sharers for at least 5% of the total car parking capacity for the development; AND • Locate priority parking spaces nearest the development entrance used by the sharing scheme participants.	-	*0*
	• During preparation of the brief, the design team consults with the local authority (LA) on the state of the local cycling network and public accessible pedestrian routes, to focus on whichever the LA deems most relevant to the project, and how to improve it; AND • Agree and implement one proposition chosen with the local authority. The proposition supported by the development is additional to existing local plans and has a significant impact on the local cycling network or on pedestrian routes open to the public.	Section 3 of TA MCC and TfGM consulted regarding site access upgrade and crossings	*2*
	• Install compliant cycle storage spaces to meet the minimum levels set out in Table 7.5 (sliding scale of compliance used as building has over 400 users);	Section 3 of TA	*1*
	• The above has been achieved; provide at least two compliant cyclists' facilities for the building users (showers, changing facilities, lockers, drying spaces);	Section 3 of TA	*1*
	Existing amenities: • All three existing accessible amenities are present (Building Type 1);	Section 4 of TA	*1*

BREEAM Category	Description	Signposts	No. of Credits
	Enhanced amenities: • Ensure a minimum of one new accessible amenity, in accordance with Table 7.6 on page 191, for the relevant Building Group, is provided; OR • Ensure more than one new accessible amenity, in accordance with Table 7.6 on page 191, for the relevant Building Group, is provided. • Implement one site-specific improvement measure, not covered by the options already listed in this issue, in line with the recommendations of the travel plan. Submit this for review by BRE. 3. Award credits according to the existing Accessible Index (AI) of the project, and the total number of points achieved for the options implemented, see Table 7.3 of BREEAM guidance.	On-site café proposed Section 7 of FTP Site AI: 7.34 Points achieved under criteria 2: 10	*2* *1* **10**
Total Transport Credits Obtained			**12**

Table 5.1 – BREEAM Credits Targeted

5.1.2 Other relevant considerations in a BREEAM-compliant report include the following, with the compliance of the proposed development to these considerations outlined next to the criteria:

- **Lighting, landscaping and shelter to create pleasant pedestrian and public transport waiting areas** – Pleasant pedestrian environments will be delivered within the site as part of proposed development, public transport waiting areas will not be delivered within the site due to existing infrastructure that is already available in the vicinity of Princess Road and Barlow Moor Road;
- **Restrictions or charging for car parking** – Car parking will be provided below standards, in line with the longer-term aspiration to develop Didsbury Technology Park as an 'eco site' with a comprehensive and robust FTP that seeks to engender travel behaviour change over time;
- **Pedestrian and cyclist friendly (for all types of users regardless of the level of mobility or visual impairment) with the provision of cycle lanes, safe crossing points, direct routes, appropriate tactile surfaces, good lighting and signposting to other amenities, public transport nodes and adjoining off-site pedestrian and cycle routes** – Safe crossing points, direct routes, appropriate surfaces, lighting, and signposting will be delivered within the site as part of proposed development. **Section 3** of this report provides details of improvements at the site access junction with Barlow Moor Road that would enhance pedestrian and cycle amenity;
- **Provision of suitable taxi drop-off or waiting areas** –The loading bay to the south-east of The Ev0 Building, and the adjacent car park aisle, will be available as a drop-off/pick-up point for lifts and taxis. This area would be clearly signposted and managed by Bruntwood; and
- **Ensure rural buildings have appropriate access to transport to serve the local community adequately (where procured to do so, e.g., community centre)** – Not applicable as the development is located within an existing urban area.

5.1.3 A key part of the FTP will be monitoring, whereby travel surveys will be distributed to staff at the development in order to understand travel habits. Recipients will be encouraged to participate, and the surveys would extract key information such as place of residence, usual mode of travel and reason for modal choice, attractiveness of and barriers to active and sustainable modes of travel, and any incentives that could encourage staff to travel more sustainably. The findings will provide information on reasons for travel patterns and attitudes of site users to identify relevant constraints and opportunities.

5.1.4 The FTP includes Travel Information Packs as an initiative to encourage sustainable travel, which would be a site-specific improvement measure in line with the aims, objectives, and recommendations of the Travel Plan. This measure is submitted for review by BRE.

6.0 Traffic Forecasting

6.1 Introduction

6.1.1 This section of the report details the methodology used to predict the demand associated with the proposed development and derive future year traffic flows in order to assess the impact of the site.

6.2 Traffic Surveys & Assessment Years

Traffic Surveys

6.2.1 As part of scoping discussions with Highways Officers at MCC and TfGM, it was noted that consideration should be given to the operation of the Site Access priority junction with Barlow Moor Road, the A5103 Princess Road/Barlow Moor Road signalised junction and the A5103 Princess Road / Nell Lane signalised junction.

6.2.2 On this basis, traffic surveys were undertaken at these junctions on 11th February 2022, which were agreed with Highways Officers in advance, deemed suitable following the COVID-19 restrictions lifting in July 2021.

6.2.3 Full Traffic Survey data is included within **Appendix C.**

6.2.4 The network peak hours were derived as follows:

- AM: 07:45 – 08:45; and
- PM: 16:00 – 17:00.

6.2.5 **Traffic Figures 1** and **2** at the rear of the report show the 2022 Survey peak hour traffic flows for the AM and PM peaks respectively. All Traffic Figures are provided in **Appendix D.**

6.2.6 In addition, vehicular trips generated by committed developments will be required to be considered as part of the surveyed flows to represent an accurate baseline position. Following scoping discussions, this includes the following:

- **Hough End Sports Village** (132513/VO/2021) – Erection of a two-storey extension to form changing rooms, cafe facilities, flexible club/social/training rooms and an extension to the existing gym space following the demolition of the existing changing block building; together with the creation of two 3G artificial football turf pitches, associated floodlighting and fencing; a 67no. space car park and an additional 60 space overflow car park; and associated landscaping.

6.2.7 The flows associated with Hough End Sports Village have been included within **Traffic Figures 3 – 4** at the rear of this report. These have then been subsequently added to the 2022 Surveys in **Figures 5 and 6** as the proposed AM and PM Base.

Assessment Years

6.2.8 As part of the consented (now constructed and operational) development at the DTP, traffic surveys were undertaken in 2012 at the same junctions on the local highway network.

6.2.9 As the Princess Road corridor is metered by traffic signals along its length, it is considered that no traffic growth has occurred in the last ten years and therefore no traffic growth is proposed for future year scenarios.

6.2.10 Furthermore, with changes in travel habits/working patterns associated with the post-COVID-19 world, car travel to / from the city will reduce – and not grow in the coming years – with the uptake in home working / flexible working. A reduction in peak hour trips to the city centre is also in line with the City Centre Transport Strategy to 2040.

6.2.11 It is considered that the 2022 surveys plus Committed Development flows represent a robust baseline scenario for assessment. This has been an approach taken on other schemes in Manchester and accepted by MCC and TfGM.

6.2.12 On this basis, the flows shown in **Figures 5** and **6** are utilised as the AM and PM Base flows for assessment.

6.3 Trip Generation

6.3.1 In order to derive the trips associated with the proposed development, the TRICS database (multi-modal) has been interrogated for similar sites. The selection criteria used is as follows:

- Business Parks;
- All sites in England, Wales and Scotland excluding Greater London;
- Sites ranging from 1,000m² to 20,000m² GFA; and
- Sites located in Edge of Town and Suburban areas.

6.3.2 **Table 6.1** below summarises the person trip rates derived from the TRICS database. The full TRICS output is provided in **Appendix E** at the rear of this document.

6.3.3 The total gross floor area (GFA) has been calculated in line with the TRICS definition, which states the following:

"The total internal floor area of all floors within the site building(s), including mezzanine floors. There are exceptions to this (see Car Show Rooms, Garden Centres, Builders Merchants, Warehousing, and DIY Superstores (with garden centres) in the Guide to Land Use Classifications section). Internal floor areas will include all areas accessible to staff and visitors (e.g., office space, canteens, storage areas,

toilets, etc), but will exclude service areas (e.g., lift shafts, stairwells, plant, staff and visitor car parks, etc). Trip rates are calculated per 100m² GFA."

6.3.4 On this basis, the service areas of the GFA have been removed from the calculations, which results in a total GFA of 8,798m². The arrival and departure trip rates shown in **Table 6.1** below have been calculated to reflect the development peak hours derived from TRICS to provide a robust assessment; these are noted to be 08:00 – 09:00 for the AM peak and 17:00 – 18:00 for the PM peak.

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Person Trip Rate	1.830	0.237	2.067	0.227	1.581	1.808
Person Trips (8,798m² GFA)	161	21	182	20	139	159

Table 6.1 – Total Person Trip Generation

6.3.5 **Table 6.1** confirms that the proposed development would generate 182 person trips in the AM peak and 159 person trips in the PM peak.

6.3.6 In order to derive the mode share for the proposed development, Journey to Work data by Mode based on the 2011 Census for the Middle Super Output Area (MSOA) 'E02001083: Manchester 039' as a destination has been used.

6.3.7 **Table 6.2** below summarises the mode share for the existing employment trips in this output area:

Mode	Number of People	Percentage
Car driver	2,451	69.2%
Car passenger	109	3.1%
Motorcycle, scooter or moped	10	0.3%
Public transport	508	14.3%
Bicycle	128	3.6%
On foot	318	9.0%
Other	127	0.5%
Total	**3,542**	**100%**

Table 6.2 – Census Journey to Work Mode Share – Manchester 039

6.3.8 **Table 6.2** confirms that 69% of the journeys to / from this MSOA would be undertaken as a car driver.

6.3.9 Based on this analysis, the total vehicular trip generation for the proposed development is shown within **Table 6.3** below:

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Total Person Trips	161	21	182	20	139	159
Total Vehicular Trips	111	14	126	14	96	110

Table 6.3 – Development Vehicular Trip Generation

6.3.10 **Table 6.3** confirms that the proposed development would generate 126 two-way vehicle trips in the AM peak and 110 two-way vehicle trips in the PM peak.

6.3.11 A parking accumulation assessment has been undertaken, which has shown that a total of 202 spaces will be occupied during the peak period of 10:00 – 11:00 – in line with the dedicated 70% parking provision. This assessment is shown in **Appendix F**. This parking restraint will further encourage employees to consider sustainable modes of transport to / from The EV0 Building.

6.3.12 As discussed in **Section 3** of this TA, The Ev0 Building will aim for net zero carbon with sustainability as a key theme running through all aspects of the proposals. As such, there is a strong emphasis on active and sustainable travel and promoting low or zero carbon alternatives to travel by the private car.

6.3.13 As part of the proposals, an additional 65 spaces will be constructed (but not brought into use as part of the current planning application) as part of the decked parking; this would result in a total of 297 spaces to be implemented for The Ev0 Building and the future Building D2.

6.3.14 Whilst this additional parking would accommodate parking requirements for future development at Didsbury Technology Park (Building D2), the temporary 'meanwhile' use of these spaces is currently being considered by Bruntwood.

6.3.15 If the temporary 'meanwhile' use is pursued, this would be subject to a separate future planning application. Notwithstanding, as a worst case this TA has also considered the potential additional trip generation associated with the 'meanwhile use', with the AM and PM peak hour trip generation in **Table 6.3** being factored based on the parking accumulation.

6.3.16 As such, based on the trip generation assessment, the maximum parking accumulation would result in 202 spaces occupied. Therefore, to assess the worst-case scenario of all 297 spaces being occupied, the accumulation and peak hour flows require to be factored by 1.47.

6.3.17 **Table 5.4** below demonstrates the vehicular trip generation associated with the proposed development and the 'meanwhile' use with the car park fully occupied:

	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Total Vehicular Trips (Factored)	164	21	185	20	141	162

Table 6.4 – Development Vehicular Trip Generation (factored to 297 parking spaces)

6.3.18 **Table 6.4** notes that the proposed development (including the meanwhile use) could generate 185 two-way vehicle trips in the AM peak and 162 two-way vehicle trips in the PM peak. This trip generation will be utilised within the assessment scenario.

6.3.19 As noted above, the usage of these additional parking spaces is not being applied for – and the assessment of this scenario within this TA has been undertaken as a sensitivity test.

6.4 Distribution and Assignment of Development Trips

6.4.1 The trip distribution for the proposed development has been retained from the consented TA as part of Application Ref: 114283/FO/2016. This is based on 2011 Census journey to work data.

6.4.2 **Traffic Figure 7** demonstrates the distribution of arrival and departures across the local highway network.

6.4.3 Based on this, **Traffic Figures 8** and **9** demonstrates the vehicular arrival and departures attributed to The Ev0 Building in both the AM and PM peaks.

6.4.4 Furthermore, the traffic generation associated with The Ev0 Building and the additional 'meanwhile' use of the 65 parking spaces has been considered with the trip distribution, with **Traffic Figures 10** and **11** demonstrating the vehicular arrival and departure movements.

6.5 Assessment Traffic Flows

6.5.1 The traffic flows for The Ev0 Building have been added to the Base scenario (2022 Surveys + Committed Developments) to form the 'Base + Ev0 Building' scenario traffic flows. The resultant figures are set out in **Traffic Figures 12** and **13**.

6.5.2 The traffic flows for the Base + Ev0 Building + Meanwhile Use are set out in **Traffic Figures 14** and **15**.

6.6 Junctions to be Assessed

6.6.1 The following junctions were noted to be above the 30-trip threshold (considered by MCC and TfGM to require additional assessment) in the AM and / or PM peaks.

6.6.2 As such, the operation of the existing highway network has been assessed at the following locations:

- **Junction 1** – Southern Siemens / Spire Hospital Access / Barlow Moor Road priority junction;
- **Junction 2** – A5103 Princess Road / Barlow Moor Road signalised junction; and
- **Junction 3** – A5103 Princess Road / Nell Lane signalised junction.

6.6.3 The junction capacity assessments are set out in the next section of this report.

7.0 Capacity Assessments

7.1 Introduction

7.1.1 As part of this TA, the operation of the local highway network has been assessed at the following locations:

- **Junction 1** – Site Access Road / Spire Hospital Access / Barlow Moor Road priority junction;
- **Junction 2** – A5103 Princess Road / Barlow Moor Road signalised junction; and
- **Junction 3** – A5103 Princess Road / Nell Lane signalised junction.

7.1.2 The above junctions operating under priority control have been modelled utilising TRL's JUNCTIONS programme and those under signal control via JCT Consultancy's LinSig programme.

7.1.3 LinSig allows traffic engineers to model traffic signals and their effect on traffic capacities and queuing. As well as modelling the effects of traffic signals, LinSig also optimises signal timings to reduce delay or increase capacity at a junction or group of interlinked junctions.

7.1.4 LinSig results refer to the Degree of Saturation (DoS) and Mean Maximum Queue (MMQ) predicted in each lane of the junction. A DoS of 100% indicates that the lane in question is operating at its theoretical capacity (point of saturation), whilst a DoS of 90% or less indicates that the lane is operating within its practical capacity.

7.1.5 JUNCTIONS results refer to the Ratio of Flow to Capacity (RFC), delay and queue length predicted on each arm of the junction. An RFC of 1.00 indicates that the arm in question is operating at its theoretical capacity, whilst an RFC of 0.85 or less indicates that the arm is operating within its practical capacity.

7.1.6 The results of the assessments are shown in the following sub-sections and the relevant junction modelling output reports are attached in **Appendix G**, to the rear of this report.

7.2 Junction 1 – Site Access Road / Spire Hospital Access / Barlow Moor Road Priority Junction

7.2.1 **Table 7.1** presents a summary of the PICADY results for the Base scenario, **Table 7.2** presents the results of the Base + Ev0 Building scenario, and **Table 7.3** assesses the addition of the Meanwhile Use spaces being utilised.

Approach	2022 Base					
	AM Peak			PM Peak		
	RFC	Ave Queue	Delay (s)	RFC	Ave Queue	Delay (s)
Site Access to Barlow Moor Road (E)	0.02	0.0	8.93	0.09	0.1	9.92
Site Access to Barlow Moor Road (W)	0.12	0.2	17.62	0.31	0.5	20.30
Barlow Moor Road (E)	0.15	0.4	4.23	0.06	0.1	4.15

Table 7.1 – Barlow Moor Road / Site Access – 2022 Base Scenario

Approach	2022 Base + Ev0 Building					
	AM Peak			PM Peak		
	RFC	Ave Queue	Delay (s)	RFC	Ave Queue	Delay (s)
Site Access to Barlow Moor Road (E)	0.02	0.0	9.41	0.17	0.2	17.59
Site Access to Barlow Moor Road (W)	0.19	0.3	20.08	0.67	2.1	42.52
Barlow Moor Road (E)	0.21	0.8	4.39	0.06	0.1	4.17

Table 7.2 – Barlow Moor Road / Site Access – 2022 Base + Ev0 Building

Approach	2022 Base + Ev0 Building + Meanwhile Use					
	AM Peak			PM Peak		
	RFC	Ave Queue	Delay (s)	RFC	Ave Queue	Delay (s)
Site Access to Barlow Moor Road (E)	0.02	9.66	0.0	0.38	0.6	45.88
Site Access to Barlow Moor Road (W)	0.22	21.52	0.3	0.84	4.6	78.63
Barlow Moor Road (E)	0.24	4.48	1.1	0.07	0.1	4.18

Table 7.3 – Barlow Moor Road / Site Access – 2022 Base + Ev0 + Meanwhile Use Scenario (Sensitivity)

7.2.2 Based on the results shown in **Table 7.1,** it is noted that the existing Site Access operates within practical capacity during the Base scenario, with low levels of delay (maximum of 20.30 seconds during the PM peak on the Site Access to Barlow Moor Road (W) approach).

7.2.3 The priority junction continues to operate within practical capacity in the future development scenarios, as shown in **Tables 7.2** and **7.3**; however, it is noted that the queues and delays will increase on the Site Access approach. This rises to 42.52 seconds when The Ev0 Building flows are introduced (+22.22 seconds) and to 78.63 seconds if the Meanwhile Use parking spaces were to be used in the future (+58.33 seconds). Due to this increase in delay, a mitigation scheme has been explored.

Proposed Improvement Scheme – Signalised Site Access / Barlow Moor Road

7.2.4 On the above basis, Curtins has prepared an alternative access design inclusive of signal control. This design is shown on **Drawing 081025-CUR-XX-00-D-TP-75001** included to the rear of this report. The design includes signalised crossing facilities and advanced cycle stop lines on the northern and western arms of the junction, and the provision of ghost island right turn lanes for general traffic. The existing footways on the internal spine road would be retained to facilitate safe pedestrian movement to the site.

7.2.5 Following pre-application discussions with Highways Officers at MCC and TfGM, the pedestrian crossings are proposed as straight-across crossings to promote active travel.

7.2.6 The proposed access improvement scheme shown on **Drawing 081025-CUR-XX-00-D-TP-75001** to the rear of this report has been assessed using LinSig.

7.2.7 **Table 7.4** presents a summary of the LinSig results for the Base scenario, **Table 7.5** presents the LinSig results of the Base + Ev0 Building scenario, and **Table 7.6** assesses the addition of the Meanwhile Use spaces being utilised. In each scenario, the signal timings have been optimised.

Approach	2022 Base					
	AM Peak			PM Peak		
	DoS (%)	MMQ	Delay (s)	DoS (%)	MMQ	Delay (s)
Barlow Moor Road (W) Left Ahead	71.7%	16.3	22.7	61.2%	13.4	20.3
Site Access Road Right Left	25.9%	1.1	62.7	65.8%	4.1	74.8
Barlow Moor Road (E) Ahead Right	81.2%	23.0	26.8	76.5%	19.9	25.4

Table 7.4 – Barlow Moor Road / Site Access Proposed Signals – 2022 Base Scenario

Approach	2022 Base + Ev0 Building					
	AM Peak			PM Peak		
	DoS (%)	MMQ	Delay (s)	DoS (%)	MMQ	Delay (s)
Barlow Moor Road (W) Left Ahead	76.8%	19.7	24.4	68.7%	15.6	25.7
Site Access Road Right Left	36.0%	1.6	65.7	80.7%	7.8	76.3
Barlow Moor Road (E) Ahead Right	82.1%	23.6	27.7	84.2%	23.0	33.8

Table 7.5 – Barlow Moor Road / Site Access Proposed Signals – 2022 Base + Ev0 Building

Approach	2022 Base + Ev0 Building + Meanwhile Use					
	AM Peak			PM Peak		
	DoS (%)	MMQ	Delay (s)	DoS (%)	MMQ	Delay (s)
Barlow Moor Road (W) Left Ahead	81.5%	22.2	27.0	73.6%	17.0	29.7
Site Access Road Right Left	41.0%	1.9	67.6	81.6%	9.1	70.6
Barlow Moor Road (E) Ahead Right	82.5%	23.8	28.3	89.4%	25.8	42.4

Table 7.6 – Barlow Moor Road / Site Access Proposed Signals – 2022 Base + Ev0 + Meanwhile Use Scenario (Sensitivity)

7.2.8 The results in the above tables demonstrate that the proposed signalised junction arrangement will operate within practical capacity in all scenarios.

7.2.9 Whilst it is noted that the delays in the 2022 Base are higher than the existing priority junction, it is recognised that the increases are not significant when development traffic is included. In addition, when drivers are waiting at traffic lights, they are aware of and expect the wait time associated with traffic signal control.

7.2.10 Furthermore, it should be noted that the assessment considers a pedestrian phase (all red for vehicular traffic) every cycle. This is unlikely to be the case and is considered to be a robust assessment as it is unlikely that the pedestrian phase will be called every cycle.

7.2.11 The proposed junction will likely benefit from MOVA signal technology with on-crossing detection which would optimise the performance of the junction.

7.2.12 The proposed signalised junction is considered to be a suitable solution, which not only improves the performance of the junction for general traffic and allows for future development at the Didsbury Technology Park site, but also takes account of active travel movements through the provision of controlled crossing facilities for pedestrians and cyclists.

7.3 Junction 2 – A5103 Princess Road / Barlow Moor Road Signalised Junction

7.3.1 **Table 7.7** presents a summary of the LinSig results for the 2022 Base scenario, **Table 7.8** presents the 2022 Base + Ev0 scenario and **Table 7.9** assesses the addition of the Meanwhile Use spaces being utilised. In each scenario, the signal timings have been optimised.

Link	Lane Descriptor	2022 Base			
		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ
J1: A5103 Princess Road / Barlow Moor Road					
1/2+1/1	Princess Road North Left Ahead	71.4%	16.2	80.9%	21.4
1/3	Princess Road North Ahead	72.3%	17.9	81.7%	23.5
1/4	Princess Road North Right Ahead	72.0%	17.7	81.5%	23.3
2/2+2/1	Barlow Moor Road East Left	71.4%	11.1	82.5%	14.1
2/4+2/3	Barlow Moor Road East Ahead	58.9%	9.0	58.2%	8.1
3/1	Ahead	70.7%	15.6	68.3%	6.0
3/2	Ahead	69.4%	16.4	64.1%	3.0
3/3+3/4	Right Ahead	67.9%	10.8	51.3%	1.1
4/1	Eastbound Internal Link Ahead	36.7%	5.0	35.3%	4.6
4/2	Eastbound Internal Link Ahead	34.7%	5.3	36.7%	4.9
4/3	Eastbound Internal Link Right	27.6%	2.1	23.1%	1.6
5/1	Westbound Internal Link Ahead	25.8%	2.8	24.7%	1.7
5/2	Westbound Internal Link Ahead	25.1%	1.9	22.0%	1.4
5/3	Westbound Internal Link Right	42.7%	0.0	41.8%	0.2
6/2+6/1	Barlow Moor Road West Ahead Left	38.0%	5.0	42.9%	4.6
6/3	Barlow Moor Road West Ahead	34.4%	4.9	34.8%	4.4
J2: A5103 Princess Road (South of J1)					
1/2	Ahead	52.4%	10.8	61.4%	14.3
1/3	Ahead	55.1%	11.6	61.7%	14.4
1/4	Ahead	66.7%	16.3	62.9%	14.9
3/1	Ahead	14.2%	1.0	10.7%	0.7
3/2	Ahead	25.6%	2.7	25.3%	2.7
4/1	Right	66.0%	6.7	56.1%	7.4
4/2	Right	66.0%	6.7	56.1%	7.4
J3: Barlow Moor Road (West of J1)					
1/1	Ahead	22.8%	0.1	20.3%	0.1
1/2+1/3	Ahead	33.7%	2.8	35.7%	2.4
3/1	Ahead	11.8%	0.9	7.8%	0.2
3/2	Ahead	30.8%	2.5	26.7%	1.2
4/1	Ahead	46.1%	3.5	75.5%	4.4
4/2	Ahead	48.1%	3.5	72.2%	4.2

Table 7.7 – A5103 Princess Road / Barlow Moor Road Signalised Junction – 2022 Base Scenario

Link	Lane Descriptor	2022 Base + Ev0 Building			
		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ
J1: A5103 Princess Road / Barlow Moor Road					
1/2+1/1	Princess Road North Left Ahead	72.4%	16.6	84.3%	22.8
1/3	Princess Road North Ahead	72.9%	18.1	84.9%	24.8
1/4	Princess Road North Right Ahead	72.8%	18.0	84.8%	24.6
2/2+2/1	Barlow Moor Road East Left	72.7%	11.5	84.1%	16.0
2/4+2/3	Barlow Moor Road East Ahead	59.3%	9.1	59.8%	8.9
3/1	Ahead	72.4%	16.4	70.9%	5.5
3/2	Ahead	71.1%	17.0	66.6%	3.7
3/3+3/4	Right Ahead	66.7%	9.0	52.7%	1.7
4/1	Eastbound Internal Link Ahead	40.8%	7.1	34.1%	4.9
4/2	Eastbound Internal Link Ahead	39.8%	7.1	35.6%	5.2
4/3	Eastbound Internal Link Right	27.7%	2.1	21.9%	1.6
5/1	Westbound Internal Link Ahead	26.5%	2.8	23.5%	1.8
5/2	Westbound Internal Link Ahead	24.5%	1.9	21.9%	1.3
5/3	Westbound Internal Link Right	43.8%	0.0	44.8%	0.0
6/2+6/1	Barlow Moor Road West Ahead Left	38.1%	5.0	41.5%	4.5
6/3	Barlow Moor Road West Ahead	36.0%	5.1	32.5%	4.4
J2: A5103 Princess Road (South of J1)					
1/2	Ahead	54.5%	11.5	60.5%	13.9
1/3	Ahead	57.3%	12.5	60.9%	14.0
1/4	Ahead	70.0%	18.1	62.4%	14.6
3/1	Ahead	14.1%	1.0	11.0%	0.7
3/2	Ahead	25.7%	2.8	25.0%	2.7
4/1	Right	62.9%	6.7	58.2%	7.5
4/2	Right	62.9%	6.7	58.2%	7.5
J3: Barlow Moor Road (West of J1)					
1/1	Ahead	23.3%	0.2	20.3%	0.1
1/2+1/3	Ahead	33.7%	2.8	36.1%	2.5
3/1	Ahead	11.8%	0.9	8.2%	0.3
3/2	Ahead	30.9%	2.5	26.7%	1.3
4/1	Ahead	47.4%	4.1	69.7%	4.4
4/2	Ahead	47.1%	4.0	69.7%	4.4

Table 7.8 – A5103 Princess Road / Barlow Moor Road Signalised Junction – 2022 Base + Ev0 Building Scenario

Link	Lane Descriptor	2022 Base + Ev0 Building + Meanwhile Use			
		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ
J1: A5103 Princess Road / Barlow Moor Road					
1/2+1/1	Princess Road North Left Ahead	72.8%	16.7	86.0%	23.7
1/3	Princess Road North Ahead	73.3%	18.2	86.5%	25.6
1/4	Princess Road North Right Ahead	73.1%	18.1	86.6%	25.5
2/2+2/1	Barlow Moor Road East Left	73.5%	11.7	84.5%	16.7
2/4+2/3	Barlow Moor Road East Ahead	59.6%	9.3	60.0%	9.1
3/1	Ahead	73.9%	17.0	67.6%	14.5
3/2	Ahead	72.6%	17.6	65.9%	14.8
3/3+3/4	Right Ahead	64.6%	7.8	60.2%	3.2
4/1	Eastbound Internal Link Ahead	42.9%	8.2	33.7%	5.0
4/2	Eastbound Internal Link Ahead	42.2%	8.3	35.0%	5.3
4/3	Eastbound Internal Link Right	27.7%	2.1	21.3%	1.6
5/1	Westbound Internal Link Ahead	26.5%	2.8	23.4%	1.8
5/2	Westbound Internal Link Ahead	24.7%	1.9	21.3%	1.3
5/3	Westbound Internal Link Right	44.2%	0.0	46.0%	0.0
6/2+6/1	Barlow Moor Road West Ahead Left	38.2%	5.0	40.7%	4.4
6/3	Barlow Moor Road West Ahead	36.7%	5.2	31.5%	4.3
J2: A5103 Princess Road (South of J1)					
1/2	Ahead	54.8%	11.5	57.5%	12.8
1/3	Ahead	57.6%	12.6	60.1%	13.8
1/4	Ahead	69.2%	17.5	69.4%	17.6
3/1	Ahead	14.1%	1.0	12.2%	0.8
3/2	Ahead	25.7%	2.8	24.2%	2.6
4/1	Right	66.0%	6.7	56.1%	7.4
4/2	Right	66.0%	6.7	56.1%	7.4
J3: Barlow Moor Road (West of J1)					
1/1	Ahead	23.6%	0.2	20.4%	0.1
1/2+1/3	Ahead	32.5%	2.6	37.4%	2.8
3/1	Ahead	11.3%	0.7	9.4%	0.5
3/2	Ahead	29.6%	2.2	26.9%	1.7
4/1	Ahead	55.3%	4.2	57.2%	4.4
4/2	Ahead	55.3%	4.1	55.7%	4.2

Table 7.9 – A5103 Princess Road / Barlow Moor Road Signalised Junction – 2022 Base + Ev0 Building + Meanwhile Use Scenario (Sensitivity)

7.3.2 The results in **Tables 7.7** and **7.8** demonstrate that the Princess Road / Barlow Moor Road junction is predicted to operate within practical capacity in all scenarios.

7.3.3 The results with the proposed development show an expected, slight increase in both DoS and queue lengths at certain stop lines. This is noted during the PM peak on *'2/2+2/1 – Barlow Moor Road East Left'* which facilitates a large proportion of development traffic departing the site travelling in a southern direction.

7.3.4 This approach has increases by 2.6% DoS to 84.1% total DoS and increase in queues of 2.7 PCUs to a total of 16 PCUs, from the Base scenario to the Base + Ev0 scenario. All approaches are within practical capacity and the increases are not considered significant or severe in the context of the National Planning Policy Framework (NPPF).

7.4 Junction 3 – A5103 Princess Road / Nell Lane Signalised Junction

7.4.1 **Table 7.10** presents a summary of the LinSig results for the 2022 Base scenario, **Table 7.11** presents the 2022 Base + Ev0 scenario and **Table 7.12** assesses the addition of the Meanwhile Use spaces being utilised. In each scenario, the signal timings have been optimised.

Link	Lane Descriptor	2022 Base			
		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ
1/1	Princess Road (S) Left Ahead	81.6%	24.1	64.6%	14.4
1/2	Princess Road (S) Ahead	82.5%	26.6	65.3%	16.0
1/3+1/4	Princess Road (S) Ahead Right	112.7%	14.3	68.6%	15.8
2/2+2/1	Nell Lane (W) Left Right Ahead	88.8%	13.7	68.4%	11.6
3/1	Princess Road (N) Ahead Left	45.9%	8.6	67.4%	15.7
3/2	Princess Road (N) Ahead	47.5%	9.8	68.6%	17.4
3/3+3/4	Princess Road (N) Right Ahead	73.2%	9.1	69.2%	17.1
4/2+4/1	Nell Lane (E) Ahead Left	44.3%	3.9	30.8%	3.0

Table 7.10 – A5103 Princess Road / Nell Lane Signalised Junction – 2022 Base Scenario

Link	Lane Descriptor	2022 Base + Ev0 Building			
		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ
1/1	Princess Road (S) Left Ahead	82.9%	24.9	64.6%	14.4
1/2	Princess Road (S) Ahead	83.8%	27.5	66.1%	16.3
1/3+1/4	Princess Road (S) Ahead Right	112.7%	14.4	68.6%	16.1
2/2+2/1	Nell Lane (W) Left Right Ahead	87.3%	13.6	68.5%	11.7
3/1	Princess Road (N) Ahead Left	47.0%	9.0	67.4%	15.7
3/2	Princess Road (N) Ahead	48.5%	10.1	68.6%	17.4
3/3+3/4	Princess Road (N) Right Ahead	73.2%	9.6	69.3%	17.1
4/2+4/1	Nell Lane (E) Ahead Left	43.0%	3.9	30.8%	3.0

Table 7.11 – A5103 Princess Road / Nell Lane Signalised Junction – 2022 Base + Ev0 Building Scenario

Link	Lane Descriptor	2022 Base + Ev0 Building + Meanwhile Use			
		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ
1/1	Princess Road (S) Left Ahead	83.0%	24.9	64.9%	14.5
1/2	Princess Road (S) Ahead	83.9%	27.5	66.4%	16.3
1/3+1/4	Princess Road (S) Ahead Right	112.7%	14.4	68.6%	16.4
2/2+2/1	Nell Lane (W) Left Right Ahead	88.4%	14.1	68.5%	11.7
3/1	Princess Road (N) Ahead Left	47.1%	9.1	67.6%	15.8
3/2	Princess Road (N) Ahead	48.6%	10.1	68.5%	17.4
3/3+3/4	Princess Road (N) Right Ahead	73.2%	9.6	69.3%	17.1
4/2+4/1	Nell Lane (E) Ahead Left	43.0%	3.9	30.8%	3.0

Table 7.12 – A5103 Princess Road / Nell Lane Signalised Junction – 2022 Base + Ev0 Building + Meanwhile Use Scenario (Sensitivity)

7.4.2 The results in **Tables 7.10**, **7.11** and **7.12** demonstrate that all but one approach at the A5103 Princess Road / Nell Lane junction are predicted to operate within practical capacity in all scenarios.

7.4.3 It is noted that the *'1/3+1/4 – Princess Road (S) Ahead Right'* approach during the 2022 AM Base operates at 112.7% DoS and a mean max queue of 14.3.

7.4.4 However, it should be noted that during The Ev0 Building scenario and the Meanwhile Use scenario, the DoS or queuing does not worsen on the *'1/3+1/4 – Princess Road (S) Ahead Right'* as no additional

traffic associated with the development is envisaged to undertake that manoeuvre in the AM peak hour. As such, whilst the link is over-capacity, it is not considered that the proposed development would have a material impact on the performance of this approach.

7.4.5 Overall, the impact of the development proposals at this junction is not considered significant or severe in the context of the NPPF.

7.5 Conclusions

7.5.1 It has been demonstrated in this TA that the Site Access priority junction would operate within its practical capacity but would give rise to increases in queuing and delay. As such, an improvement scheme is proposed in the form of signalised junction arrangement, which is predicted to operate safely with spare residual capacity available in all scenarios.

7.5.2 The improvement proposals would also benefit pedestrians and cyclists through the provision of controlled crossings and other facilities.

7.5.3 The capacity assessment results demonstrate that the Princess Road / Barlow Moor Road junction will continue to operate within capacity in all scenarios, and the proposed development would not have a significant impact on the Princess Road / Nell Lane signalised junction.

7.5.4 It is concluded that the traffic impacts of the development would not be significant or severe in the context of the NPPF.

8.0 Transport Planning Policy

8.1 Introduction

8.1.1 When developing the scheme proposals, it is important to understand the national and local transport related planning policies. This section outlines the key policies throughout relevant policy and guidance documents.

8.2 National Planning Policy Framework (NPPF) (2021)

8.2.1 The National Planning Policy Framework (NPPF) sets out the current national transport planning policy and outlines the important role that transport policies have to play in facilitating sustainable development.

8.2.2 Paragraph 11 states that:

"Plans and decisions should apply a presumption in favour of sustainable development."

8.2.3 For decision taking this means granting permission unless:

"*…any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies*."

8.2.4 Section 9 of the NPPF is entitled *Promoting Sustainable Transport* and outlines the important role that transport policies have to play in facilitating sustainable development. The section states that:

"*The planning system should actively manage patterns of growth …Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes.*"

8.2.5 The document emphasises the need for developments to offer a choice of sustainable modes of transport to *"reduce congestion and emissions, and improve air quality and public health"* and provide *"safe and suitable access"* for all users.

8.2.6 Paragraph 110 of the NPPF states that in assessing sites that may be allocated for development in plans, or specific applications in development, it should be ensured that:

a) *"appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
b) *safe and suitable access to the Site can be achieved for all users;*
c) *the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*

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

8.2.7 This TA has demonstrated that safe and suitable access to the site will be achieved, with an improvement scheme at the Site Access junction on Barlow Moor Road, and through the vehicle swept path analysis. Additionally, it is not anticipated that the proposals would result in any significant impacts on the highway network, as demonstrated through the junction capacity assessments.

8.2.8 Paragraph 111 of the NPPF states that:

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

8.2.9 This TA has demonstrated that the traffic impacts on the local highway network are not significant or severe in the context of the NPPF, and off-site mitigation is not required. An improvement scheme is proposed at the Site Access junction whereby the existing access would be upgraded to a signal-controlled junction.

8.2.10 Paragraph 112 of the NPPF states that applications for development should:

- *"give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

8.2.11 The proposed site layout includes infrastructure for pedestrians and cyclists creating an accessible and permeable site. The site is also located in highly accessible area of Manchester, with a good level of walking and cycling infrastructure adjacent to the site, and a wide range of public transport services are accessible within walking distance.

8.2.12 The proposed development therefore accords with the principles and key policy tests within the NPPF.

8.3 National Planning Practice Guidance (NPPG)

8.3.1 In addition to the NPPF, a National Planning Practice Guidance (NPPG) document has also been developed by the Ministry of Housing, Communities & Local Government in 2012, with a revised version in 2020. It brings together planning practice guidance for England and sits alongside the NPPF. Within this document there is a specific section that clarifies the over-arching principles on Travel Plans, Transport Assessments and Transport Statements. The guidance states that:

"Travel Plans, Transport Assessments and Statements can positively contribute to:

- *Encouraging sustainable travel;*
- *Lessening traffic generation and its detrimental impacts;*
- *Reducing carbon emissions and climate impacts;*
- *Creating accessible, connected, inclusive communities;*
- *Improving health outcomes and quality of life;*
- *Improving road safety; and*
- *Reducing the need for new development to increase existing road capacity or provide new roads."*

8.3.2 The guidance on Transport Assessments and Statements re-iterates the circumstances in which either document would usually be required. It is clear that a development of the scale and nature proposed would require a TA.

8.3.3 The NPPG also clarifies the process for establishing a scope for what the documents should contain. This guidance has therefore been considered in the production of this TA and the accompanying FTP (Document Reference: **81025-CUR-XX-XX-T-TP-00002**).

8.3.4 As outlined above, this TA demonstrates that the site is accessible by active and sustainable modes of travel, and that safe and suitable access can be gained to the development. Moreover, sustainability is a key theme that runs through all aspects of the development proposals, with a strong emphasis on active and sustainable travel, promoting low and zero carbon travel choices. The development proposals therefore apply the principles set out in the NPPG and will seek to create a sustainable development and make a positive contribution to the local area.

8.4 Manchester Core Strategy (2012 – 2027)

8.4.1 The Manchester Core Strategy promotes similar principles to the NPPF. It contains three specific "Transport" policies, comprising:

- Policy T1 – Sustainable Transport;
- Policy T2 – Accessible areas of opportunity and need; and
- Policy T3 – Strategic Integration.

8.4.2 Policy T1 focuses on sustainable transport and access for all. The accessibility of the site would encourage users of the proposed development to travel by sustainable modes.

8.4.3 Policy T2 of the Manchester Core Strategy states:

"The Council will actively manage the pattern of development to ensure that new development…Within the City Centre, provides a level of car parking which reflects the highly accessible nature of the location, as well as the realistic requirements of the users of the development."

8.4.4 The Development Framework states that for the Siemens Campus, there is a need to balance the amount of car parking with sustainable / alternative travel means in order to make the site commercially attractive whilst ensuring that Campus parking does not spill over into adjacent residential streets. The long-term aspirations for the Campus are to ensure that the masterplan reduces the dominant visual and environmental impact of car parking, in order to maximise the quality of the new commercial campus – Didsbury Technology Park.

8.4.5 The level of parking for The Ev0 Building equates to 80% of the maximum parking standard (70% plus 10% overspill). This is considered to be appropriate provision with consideration to the aspirations for the site and its accessibility and the proposed range of FTP initiatives to promote sustainable travel. The parking accumulation assessment also demonstrates that the proposed level of supply would be sufficient to meet demand.

8.4.6 The proposed parking provision at the site is reflective of the highly accessible nature of the proposed development, whilst considering the realistic requirements of the users.

8.4.7 The cycle parking proposals are in accordance with the transport policies set out in the Manchester City Council Core Strategy, with 100 long stay cycle parking spaces proposed for The Ev0 Building, and additional short-stay cycle parking proposed for visitors to the site, with 10 cycle stands to be provided near the building entrance. This is approximately double the minimum standards, which further enhances the site's sustainability credentials. The scheme therefore accords with Policy T2.

8.4.8 Policy T3 is in relation to strategic integration of developments with the sustainable transport network. The proposed development would not prejudice the implementation of any of the strategic integration projects.

8.5 Greater Manchester Transport Strategy 2040

8.5.1 In January 2021, TfGM published a 2040 Vision for Transport to develop flexible and customer-focused travel choices, supported by smart information, ticketing and payment systems, across a truly integrated Greater Manchester transport network. This Transport Strategy outlined that road transport is responsible for 80% of NO_2 pollution at the roadside, where it is most damaging to health, and that the

cost of congestion in Greater Manchester has been estimated by TfGM to be £1.3 billion per year. The Transport Strategy states an ambition for a well-connected, zero carbon Regional Centre at the heart of the North.

8.5.2 Under Policy 3, the Transport Strategy states that TfGM will "maintain a programme of interventions encouraging people to make sustainable journeys, supported through journey planning tools, and information to encourage travel behaviour change and mode shift, in order to make the most efficient use of available capacity (particularly during peak periods)". Such interventions comprise:

- *"Reducing the carbon and environmental cost of journeys;*
- *New ways of working which make the best use of the transport network;*
- *Delivering public health benefits through enabling more active travel;*
- *Improving access to key services and jobs;*
- *Maximising sustainable travel in new developments; and*
- *Becoming more resilient to disruption."*

8.5.3 Under Policy 4, TfGM will also "work with developers to ensure that new developments are accessible by sustainable modes, and to reduce transport emissions and impacts on the highway network". This will be in accordance with the principles of:

- *"Reducing the need to travel;*
- *Reducing the need to travel by car, and the distance travelled;*
- *Maximising accessibility by sustainable modes;*
- *Making the best use of existing infrastructure, particularly through increasing the density of development close to public transport nodes;*
- *Maximising opportunities to provide additional public transport; and*
- *Designing to encourage active travel."*

8.5.4 The above principles are reflected in the accompanying FTP, together with a wide range of initiatives to minimise the number of car trips generated by the development and encourage staff and visitors to use sustainable modes of transport.

8.5.5 This TA has demonstrated that the proposed development will not adversely impact the transport network, and instead would support the Transport Strategy by enhancing opportunities for sustainable travel by integrating into existing infrastructure.

8.6 Conclusions

8.6.1 The above policy review demonstrates that the proposed development is in line with national and local transport policies and guidance. The development proposals have been designed to encourage active

and sustainable travel, with existing residential areas and a range of existing and proposed local facilities and amenities accessible from the site.

9.0 Summary and Conclusions

9.1 Summary

9.1.1 Curtins has been appointed on behalf of Bruntwood (Didsbury TP) Limited to provide highways and transport advice in relation to development proposals at Didsbury Technology Park in West Didsbury, Manchester.

9.1.2 The Ohm Building was the first office building to come forward within the site as Phase 1 of the commercial development at Didsbury Technology Park. The planning application for the Ohm Building (Manchester City Council reference: 114283/FO/2016) was accompanied by a TA and FTP. The TA considered the traffic and transportation impacts of the Ohm Building and potential future phases of development at the site within the commercial and other zones.

9.1.3 At that time, the illustrative future development at Didsbury Technology Park was identified as:

- A multi-storey car park (MSCP) for up to 526 parking spaces;
- New building with up to 8,201 sqm of commercial floorspace (Building D1); and
- New building with up to 6,561 sqm of commercial floorspace (Building D2).

9.1.4 This planning application comprises plans for Phase 2; this includes Building D1 (known as The Ev0 Building) and associated access, parking and landscaping. The full development description is as follows:

- Up to 10,152m² of commercial floorspace; and
- 232 associated car parking spaces comprising a surface level car park (64 spaces) and decked car park (168 spaces)

9.1.5 Following the implementation of The Ev0 Building, an additional building on Plot D2 is envisaged as a future phase of development at the site. This additional building does not form part of this application and Bruntwood has not developed any design details for what they intend to bring forward on the Plot D2 site.

9.1.6 As part of The Ev0 Building, it is proposed that 232 car parking spaces would be provided to cater for staff and visitors. The 68 existing spaces for the Ohm Building would be retained, but reconfigured, whilst the parking within Didsbury Technology Park, which is currently allocated to Siemens, would reduce from the existing 121 spaces to 100 spaces. This is due to reduced demand for parking at the Siemens site, which would continue to be managed by Siemens as part of their ongoing operations.

9.1.7 Due to the design of the car park deck structure and its deliverability on-site, the proposed deck – inclusive of the 65 additional spaces for when Building D2 comes forward – would be constructed in full

as part of the current planning application. As such, the decked car park would comprise 233 spaces – but only 168 spaces would be allocated for use by the current planning application to support The Ev0 Building.

9.1.8 The temporary 'meanwhile' use of the additional 65 spaces is currently being considered by Bruntwood and would be subject to a separate future planning application. At the point at which any scheme comes forward for the Plot D2 building, these parking spaces would be allocated to that building.

9.1.9 Extensive pre-application scoping discussions have been held with Highways Officers at MCC and TfGM with key principles and technical parameters agreed.

9.1.10 Personal Injury Collision (PIC) data for the highway network around the site has been obtained from TfGM for the most recently available five-year period. Based on the analysis, it is not considered that there is an existing safety issue that is likely to be exacerbated by the proposed development.

9.1.11 The accessibility of the site by non-car modes of transport has been assessed in detail. The surrounding area exhibits good levels of pedestrian and cycling infrastructure, and there are several public transport opportunities for future users of the site. The site is well located to take advantage of the excellent existing public transport facilities, including both bus and Metrolink, in addition to walking and cycling opportunities, which will therefore provide realistic and viable alternatives to travel by car.

9.1.12 The results of the capacity assessments indicate that all assessed junctions are predicted to operate satisfactorily, and without a significant or severe impact in the future year traffic scenarios as a result of the development proposals.

9.1.13 Due to the increase in pedestrian, cycle and vehicular movements associated with the proposed development, Curtins has prepared an improvement scheme at the Site Access junction, with signalised crossing facilities and advanced cycle stop lines, and the provision of ghost island right turn lanes. This has been determined to operate safely with spare residual capacity available in all scenarios.

9.1.14 A review of transport planning policy and guidance has been undertaken, and it has been demonstrated that the proposed development is in line with national and local planning policies and guidance.

9.2 Conclusions

9.2.1 It is Curtins' view that from a traffic and transportation perspective, there are no reasons why the development proposals should not be granted planning approval.

9.2.2 The proposed strategy achieves the headline targets and has a long-term aspiration to change the modal split of private car usage to more sustainable modes and gradually reduce parking availability and parking ratios across the site. This balanced approach is flexible and aims to reduce parking

provision over time through careful management to ensure sufficient parking supply and prevent overspill onto adjacent streets.

Drawings

Drawing 81025-CUR-XX-00-D-TP-75001 – Proposed Access Arrangement

Drawing 81025-CUR-XX-00-D-TP-05004 – Proposed Access Arrangement (Large Refuse Vehicle)

Drawing 81025-CUR-XX-00-D-TP-05001 – Swept Path Analysis – Large Refuse Vehicle

Drawing 81025-CUR-XX-00-D-TP-05002 – Swept Path Analysis – Large Car

Drawing 81025-CUR-XX-00-D-TP-05003 – Swept Path Analysis – 10m Rigid HGV

Drawing 81025-CUR-XX-00-D-TP-05005 – Swept Path Analysis – Fire Tender

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EXISTING FOOTWAY TO BE RETAINED

PROPOSED CYCLIST ADVANCED STOP LINE

EXISTING CARRIAGEWAY WIDTH TO BE RETAINED

PROPOSED CYCLIST ADVANCED STOP LINE

PROPOSED SIGNALISED TOUCAN CROSSING WITH TACTILE PAVING AND DROPPED KERBS

EXISTING STOP LINE AND MARKINGS TO BE REMOVED

EXISTING CYCLE LANE TO BE RETAINED

RIGHT TURN POCKET - ROWSLEY AVENUE

VEHICULAR ACCESS TO BE RETAINED AS A LEFT IN / LEFT OUT MOVEMENT ONLY

PROPOSED SIGNALISED PEDESTRIAN CROSSING WITH CENTRAL REFUGE ISLAND WITH TACTILE PAVING AND DROPPED KERBS

RIGHT TURN POCKET FOR VEHICLES TURNING INTO THE SITE

KEEP CLEAR MARKINGS TO BE ADDED

GENERAL NOTES:

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6. JUNCTION IMPROVEMENTS SUBJECT TO DETAILED DESIGN.

KEY:
- INDICATIVE PLANNING BOUNDARY SUPPLIED BY LAYER STUDIO
- PROPOSED KERB LINE
- PROPOSED ROAD MARKINGS
- PUBLIC HIGHWAY EXTENTS (BASED ON OS MASTERMAP AND MCC RECORDS)

Rev:	Description:	Date:	By:	Chkd:
P06	Access arrangement updated following comments from TfGM	15/08/22	DD	CP
P05	Redline boundary finalised	25/07/22	JM	CP
P04	Redline boundary added	20/07/22	JM	CP
P03	Minor update	21/06/22	DD	CP
P02	Access arrangement updated	15/06/22	DD	CP

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Status: PLANNING

Project: EV0 - DIDSBURY

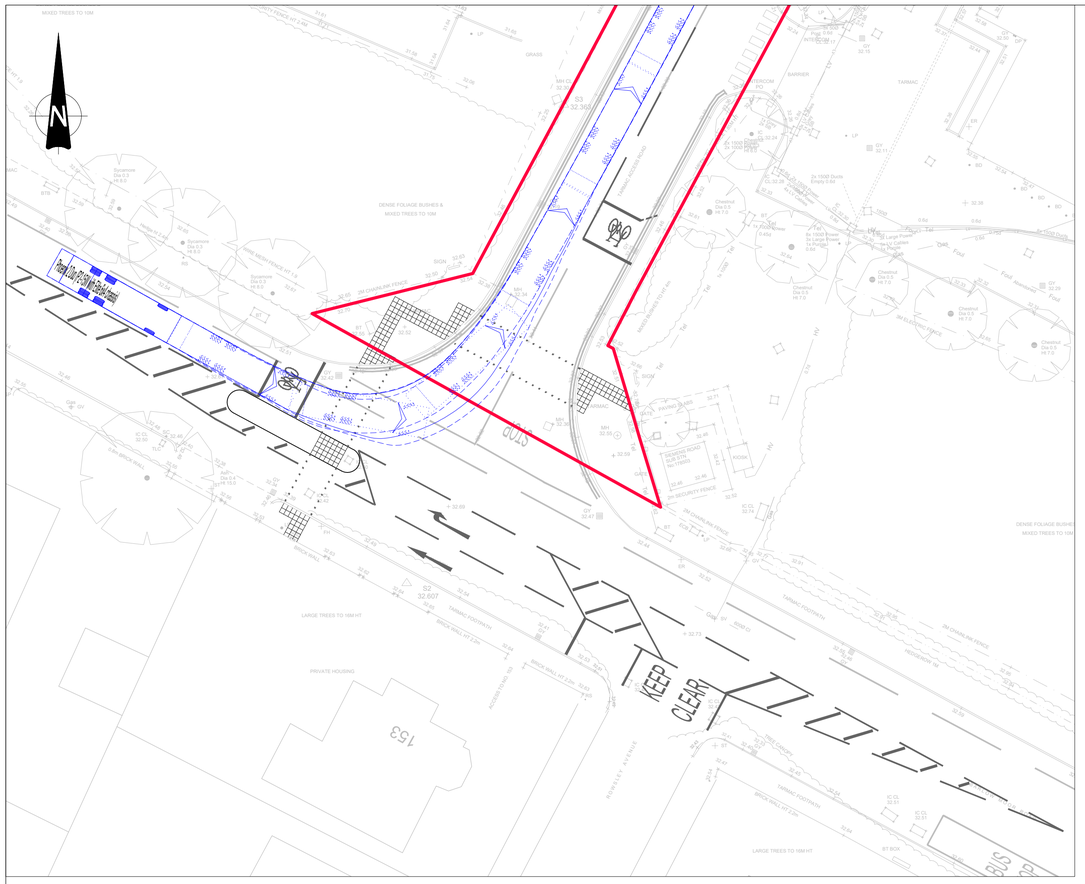
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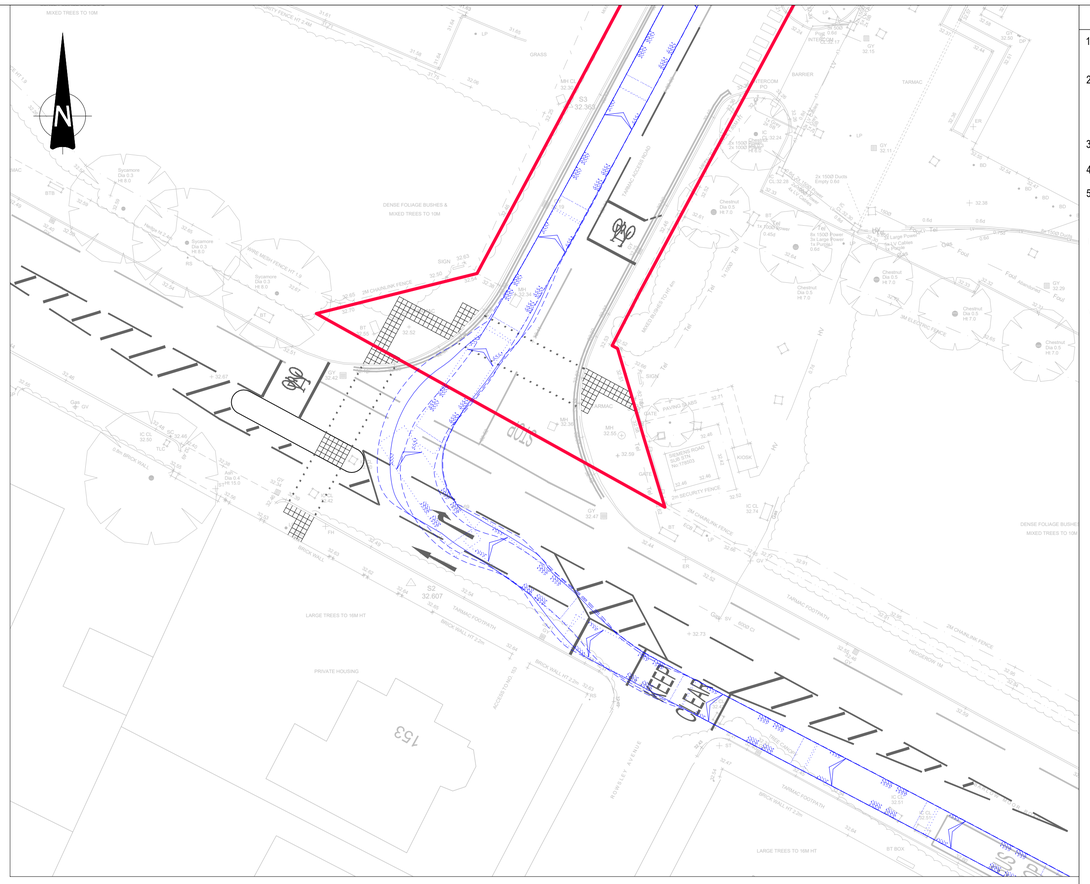
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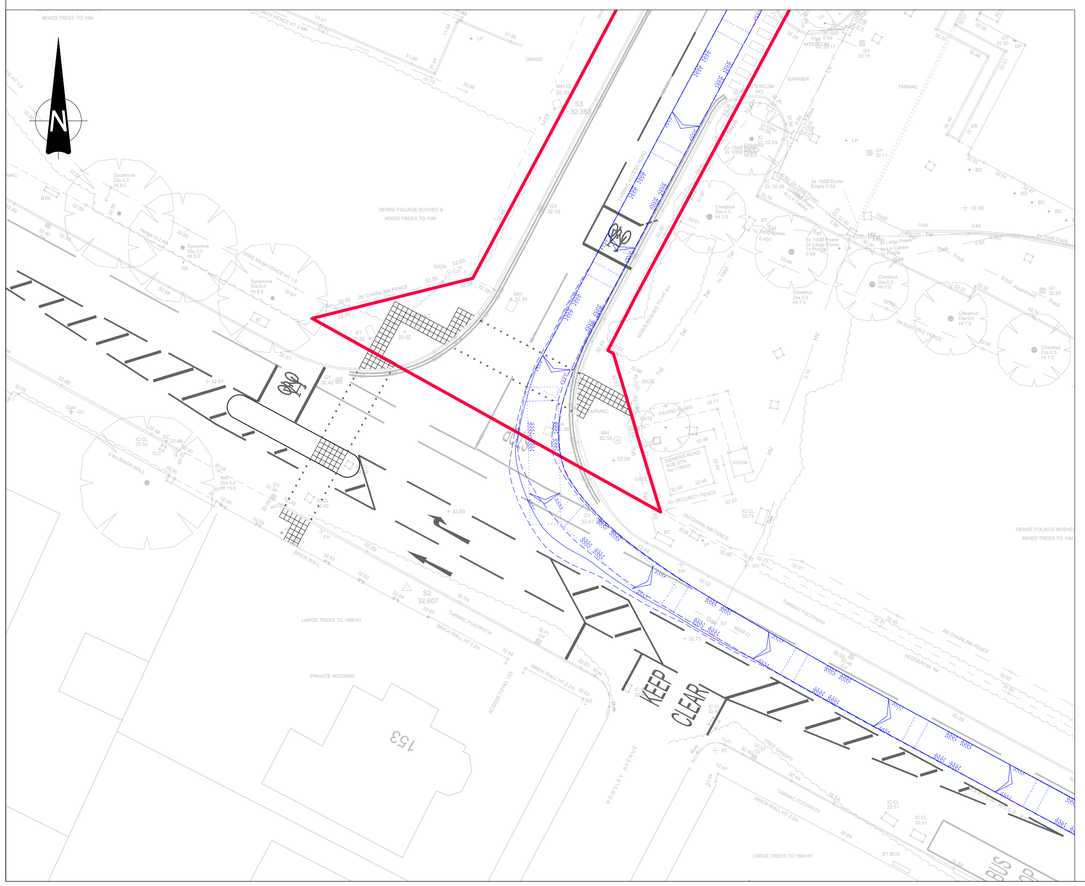
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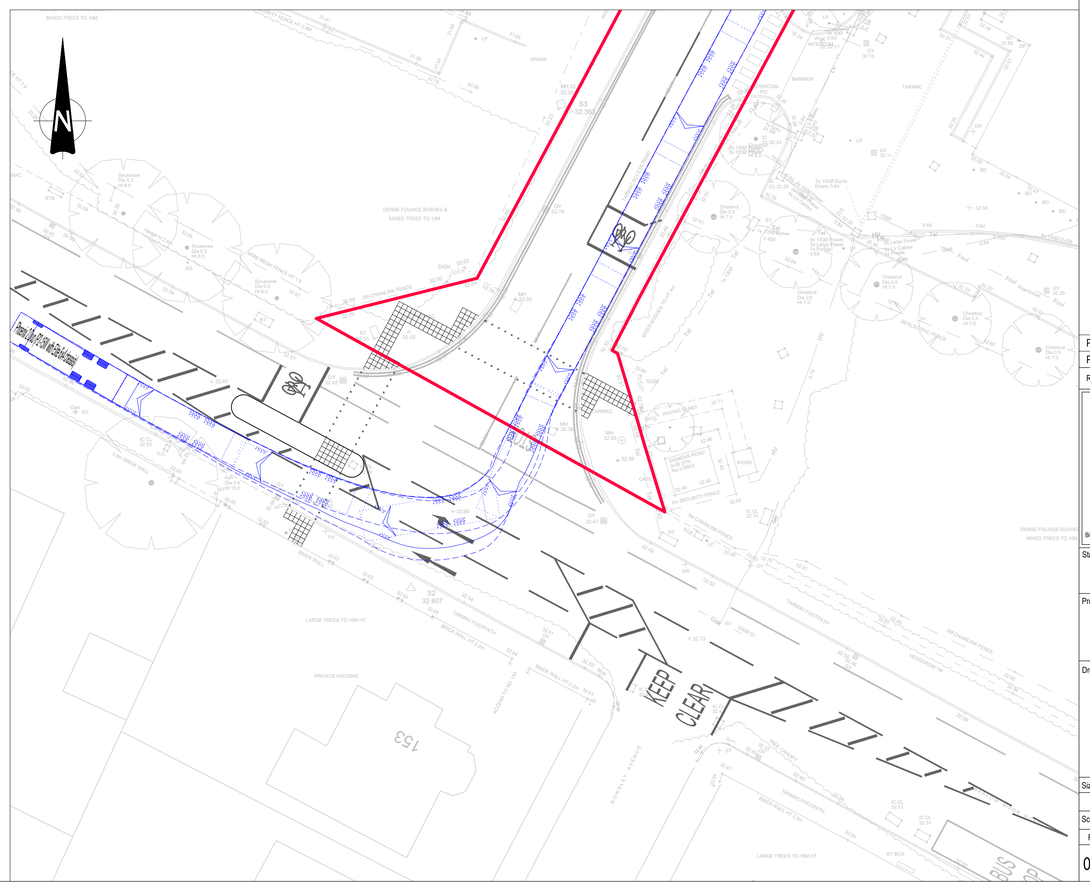
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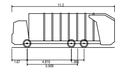


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KEY:
- INDICATIVE PLANNING BOUNDARY SUPPLIED BY LAYER STUDIO
- PROPOSED KERB LINE
- PROPOSED BACK OF FOOTWAY
- PROPOSED ROAD MARKINGS

VEHICLE PROFILE:



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)	
Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.757m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

Rev:	Description:	Date:	By:	Chkd:
P03	Proposed layout updated	24/08/22	DD	MT
P02	Redline boundary finalised & added	26/07/22	JM	CP

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Status:
PLANNING

Project:
EV0 - DIDSBURY

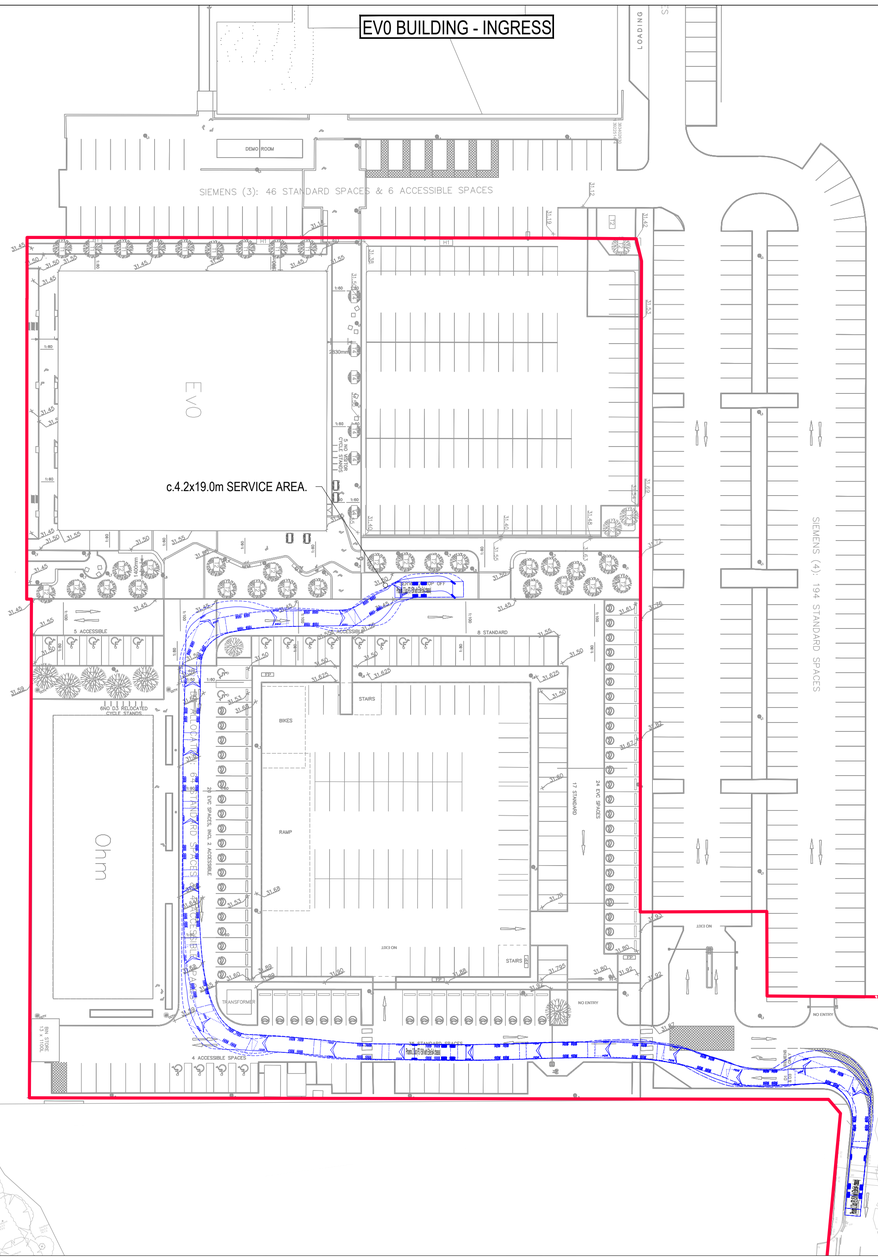
Drg Title:
SWEPT PATH ANALYSIS
11.2m REFUSE VEHICLE
PROPOSED ACCESS ARRANGEMENT

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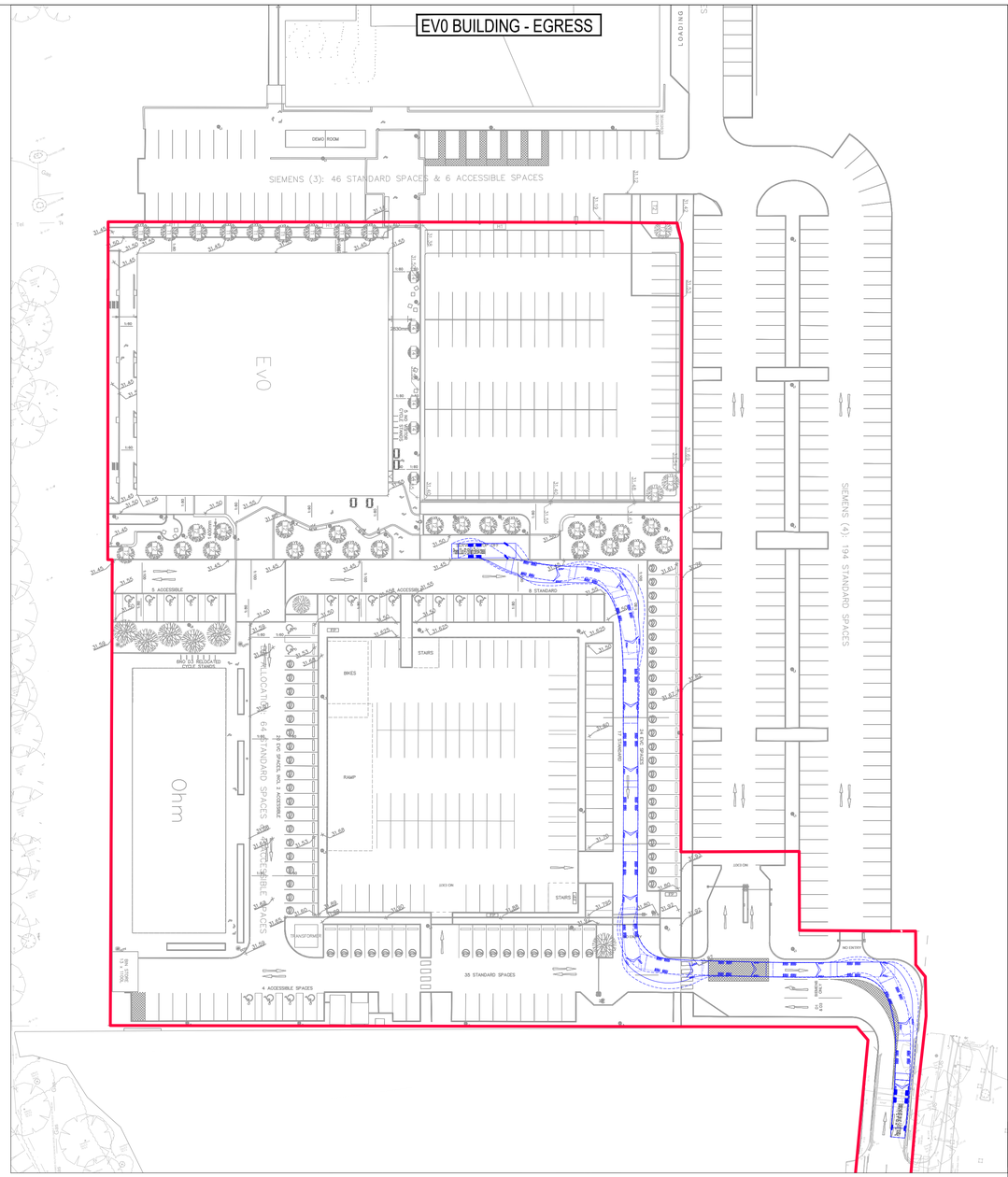
Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
081025	CUR	XX	00	D	TP	05004	P03

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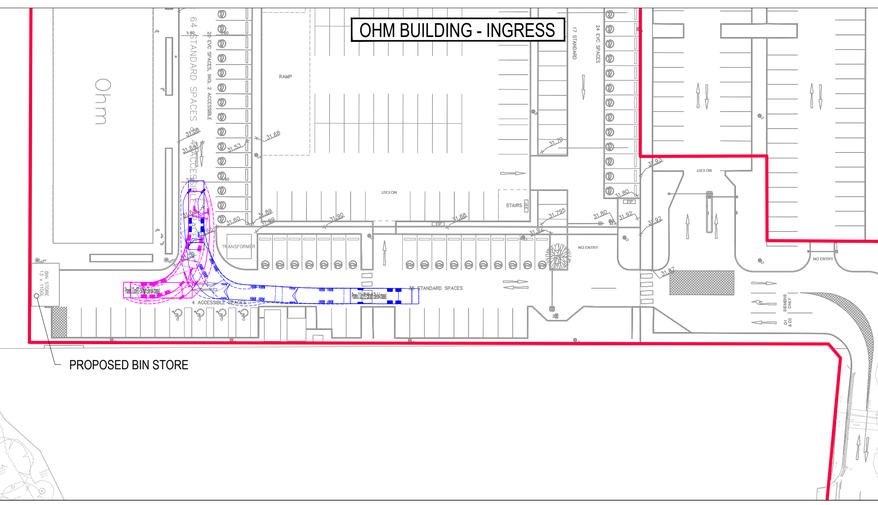
EV0 BUILDING - INGRESS



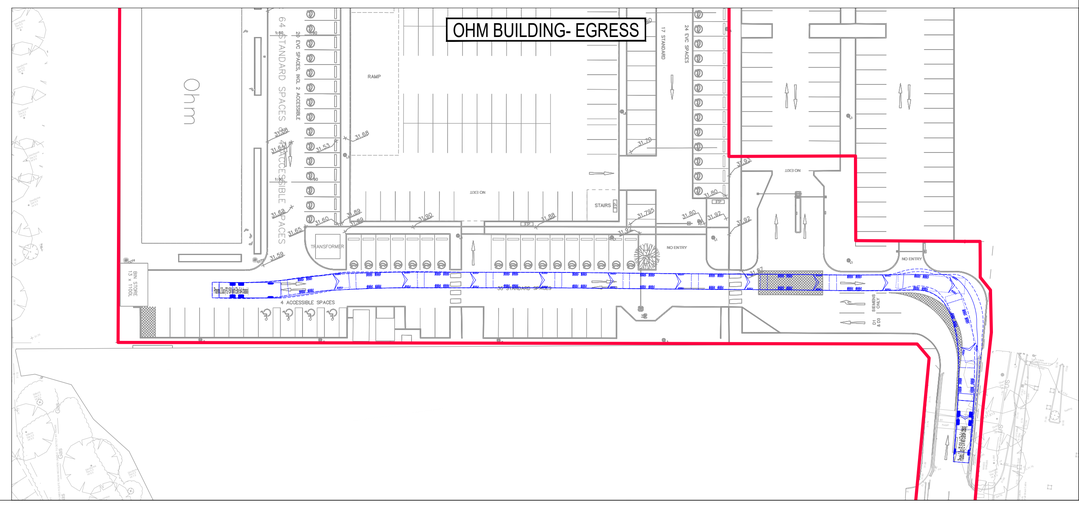
EV0 BUILDING - EGRESS



OHM BUILDING - INGRESS



OHM BUILDING- EGRESS

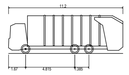


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5. THE CONTENT OF THIS DRAWING IS FOR INDICATIVE INFORMATION ONLY AND NOT SUITABLE FOR CONSTRUCTION PURPOSES
6. BASED ON LAYER STUDIO'S LAYOUT: 159-LYR-XX-XX-DWG-L-1008_P23

KEY: INDICATIVE PLANNING BOUNDARY SUPPLIED BY LAYER STUDIO

VEHICLE PROFILE:



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)	
Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.050m
Lock to lock time	4.500m
Kerb to Kerb Turning Radius	9.500m

Rev:	Description:	Date:	By:	Chkd:
P04	Redline boundary finalised	25/07/22	JM	CP
P03	Site layout & redline boundary updated	20/07/22	JM	CP
P02	Site layout updated	28/06/22	JM	CP

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Status: PLANNING

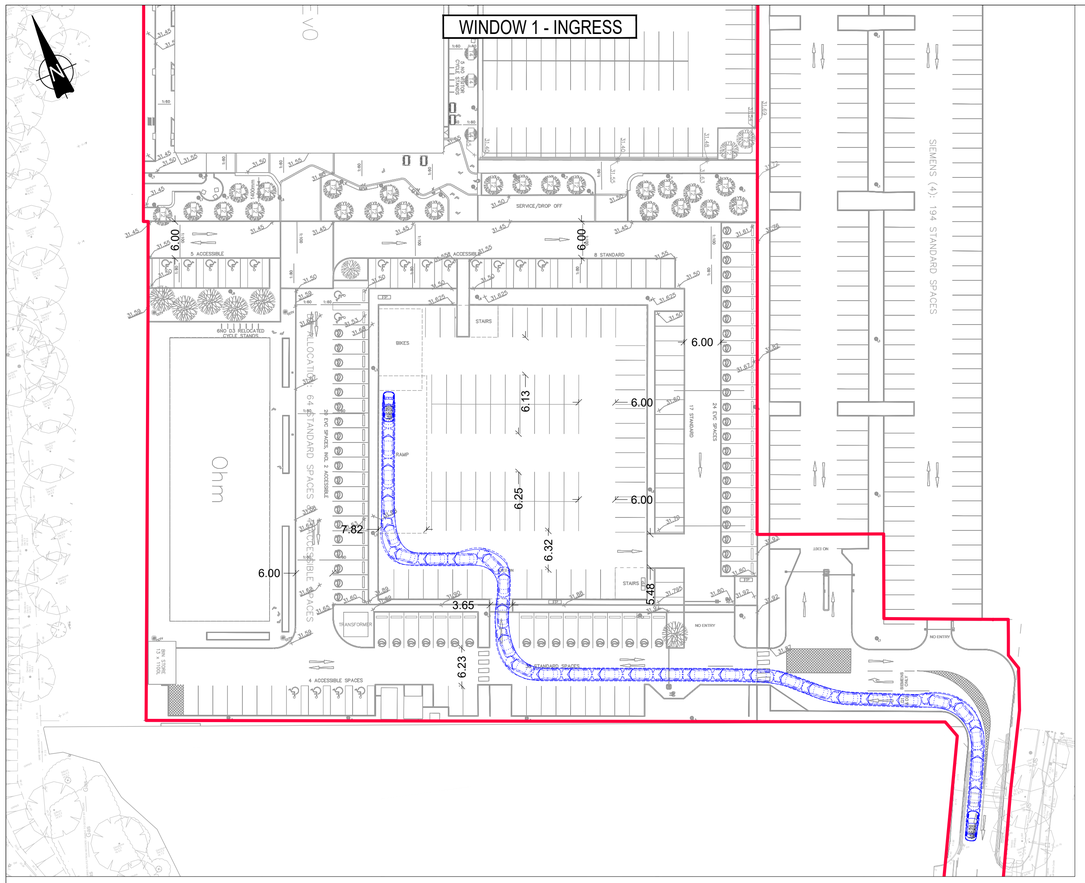
Project: DIDSBURY TECHNOLOGY PARK

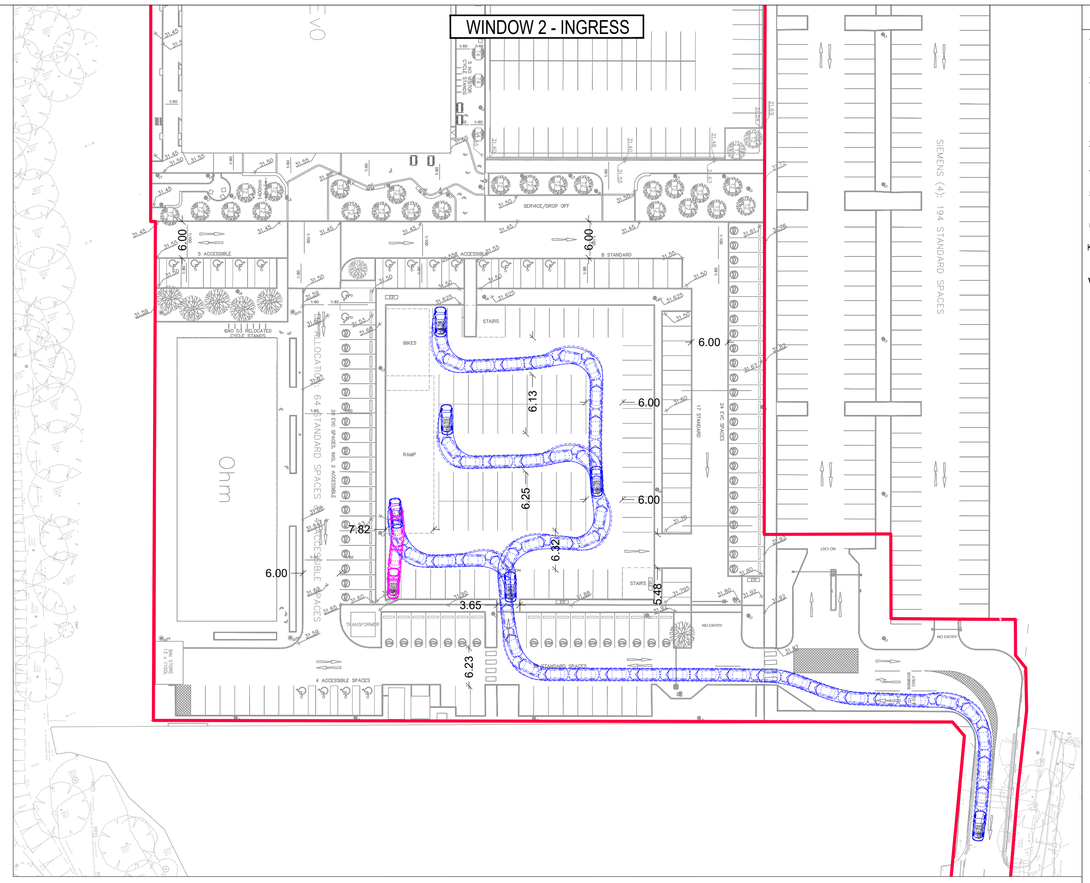
Drg Title: SWEPT PATH ANALYSIS LARGE REFUSE VEHICLE

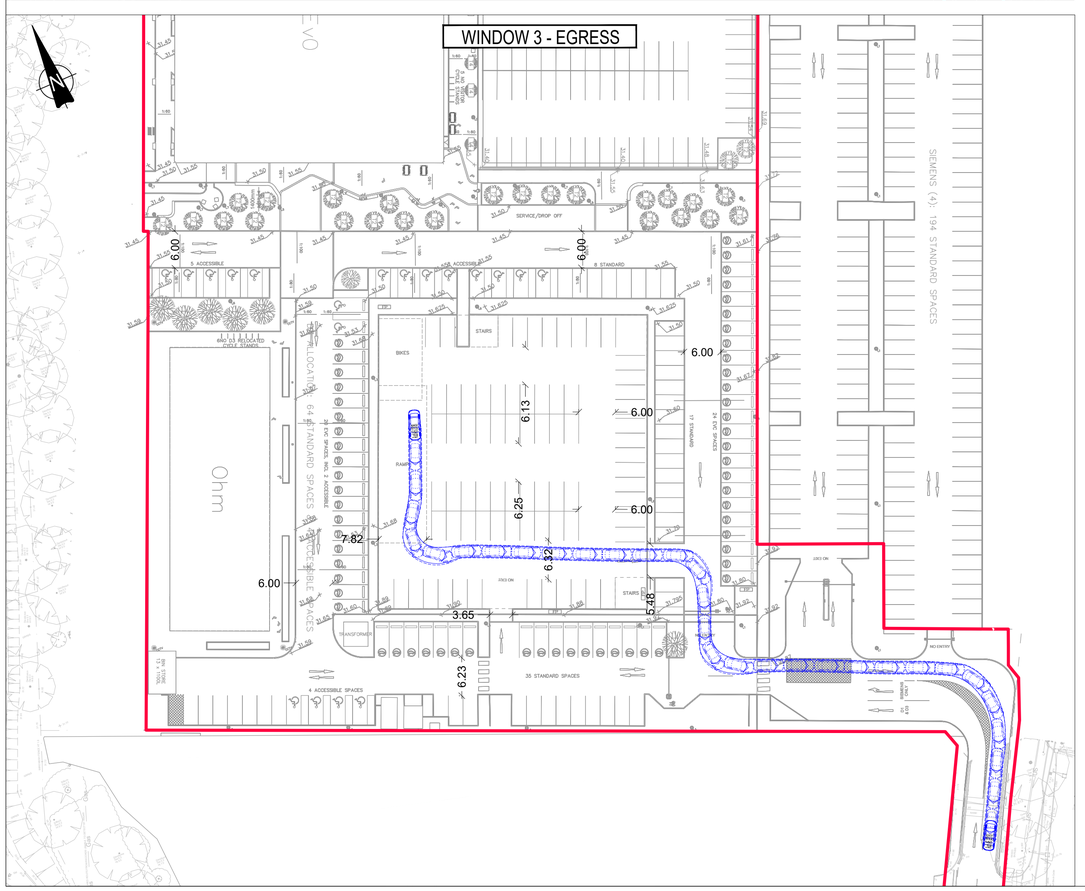
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A1	29/03/22	JM	JM	CP
Scale: 1:500				

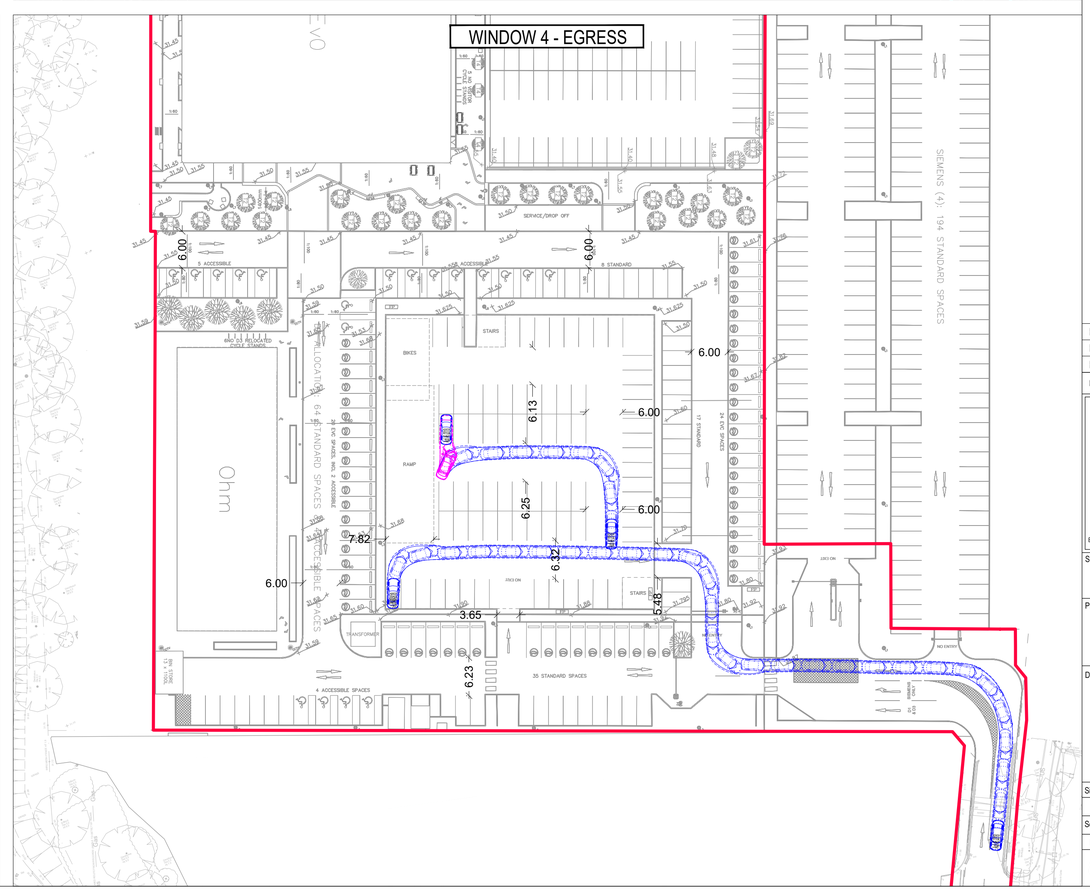
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\\mafs02\Projects\081001 - 092000\81025 - EV0 Didsbury\04-Production\4A-Models-Drawings\TP\CAD\05









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6. BASED ON LAYER STUDIO'S LAYOUT: 159-LYR-XX-XX-DWG-L-1008_P23

KEY: INDICATIVE PLANNING BOUNDARY SUPPLIED BY LAYER STUDIO

VEHICLE PROFILE:



Audi A6 (2018)	
Overall Length	4.939m
Overall Width	2.114m
Overall Body Height	1.457m
Min Body Ground Clearance	0.142m
Max Track Width	1.872m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.950m

Rev:	Description:	Date:	By:	Chkd:
P04	Redline boundary finalised	25/07/22	JM	CP
P03	Site layout & redline boundary updated	20/07/22	JM	CP
P02	Site layout updated	28/06/22	JM	CP

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Status: PLANNING

Project: DIDSBURY TECHNOLOGY PARK

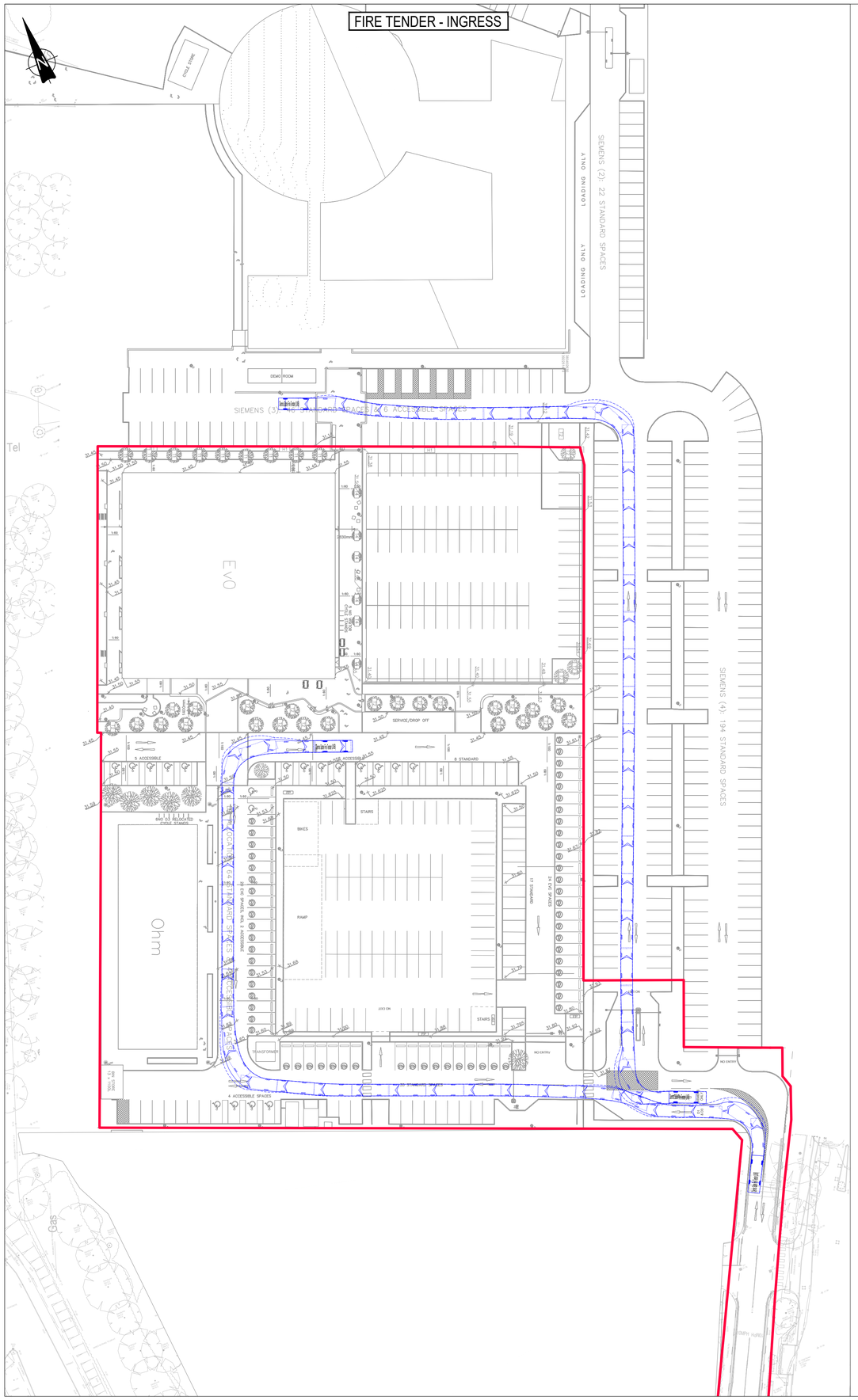
Drg Title: SWEPT PATH ANALYSIS LARGE CAR MSCP

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	29/03/22	JM	JM	CP
Scale: 1:500				

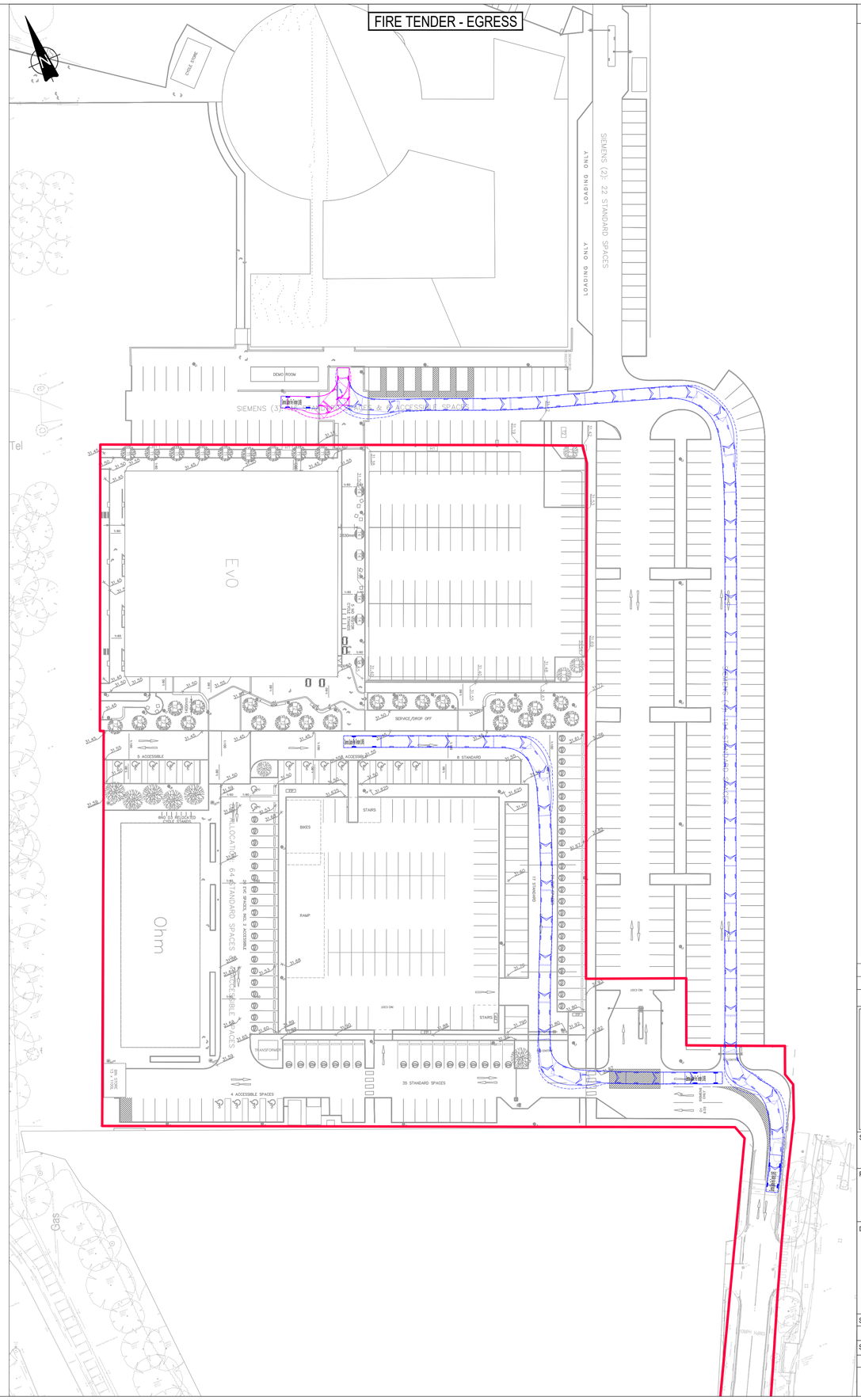
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81025	CUR	XX	00	D	TP	05002	P04

\\mafs\02\Projects\081001 - 082000\081025 - EVO Didsbury\04-Production\4-A-Models-Drawings\TP\CAD\05

FIRE TENDER - INGRESS



FIRE TENDER - EGRESS

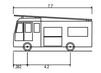


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6. BASED ON LAYER STUDIO'S LAYOUT: 159-LYR-XX-XX-DWG-L-1008_P23

KEY: INDICATIVE PLANNING BOUNDARY SUPPLIED BY LAYER STUDIO

VEHICLE PROFILE:



Dennis Sabre Fire Tender (LWB)	
Overall Length	7.700m
Overall Width	2.430m
Overall Body Height	3.512m
Min Body Ground Clearance	0.397m
Track Width	2.060m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m

Rev:	Description:	Date:	By:	Chkd:
P03	Redline boundary finalised	25/07/22	JM	CP
P02	Site layout & redline boundary updated	20/07/22	JM	CP

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Status: PLANNING

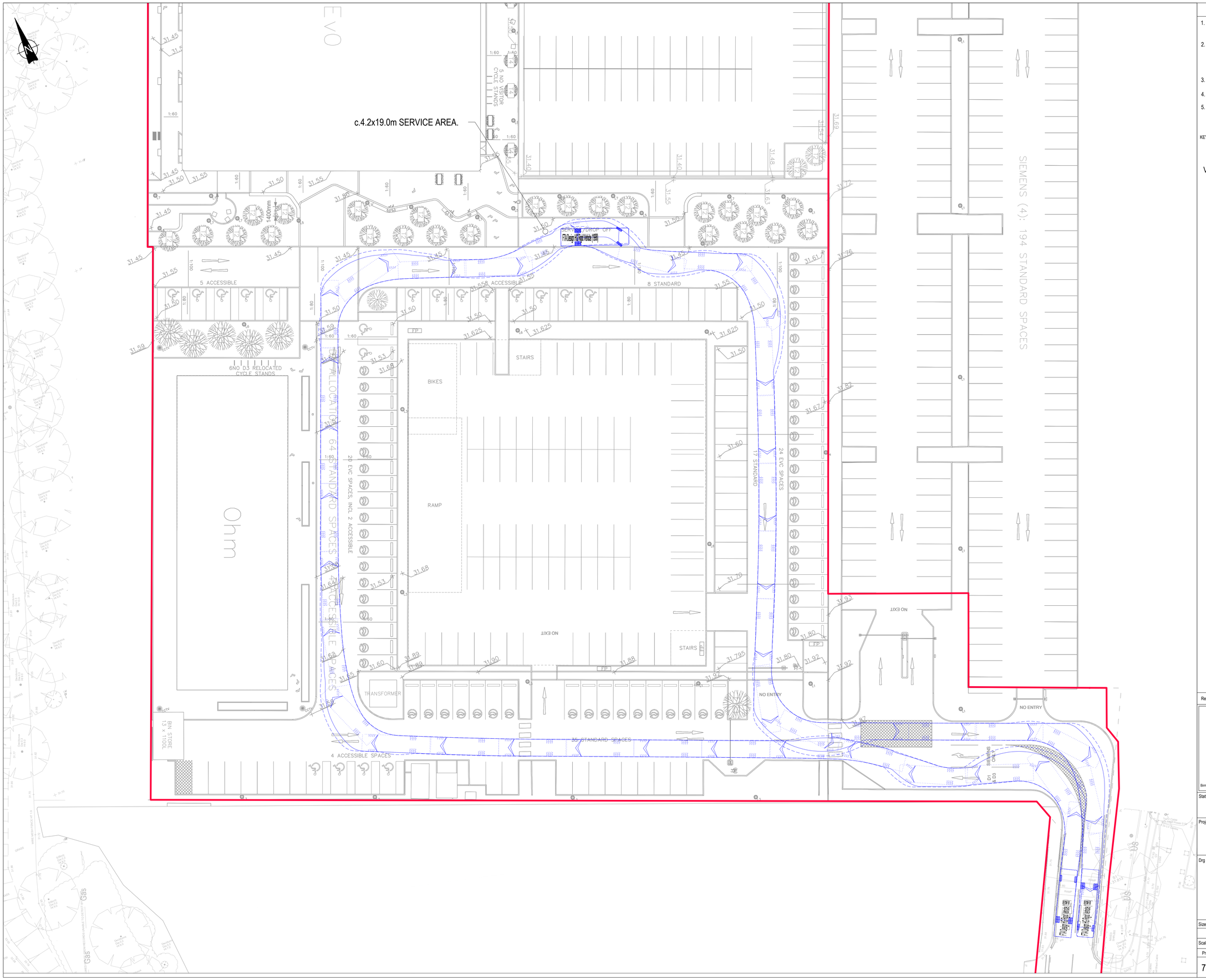
Project: DIDSBURY TECHNOLOGY PARK

Drg Title: SWEPT PATH ANALYSIS FIRE TENDER

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	22/10/20	JM	JM	CP
Scale: 1:500				

Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
81025	CUR	XX	00	D	TP	05005	P03

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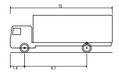


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KEY: INDICATIVE PLANNING BOUNDARY SUPPLIED BY LAYER STUDIO

VEHICLE PROFILE:



FTA Design HG Rigid Vehicle (1998)

Overall Length	10.000m
Overall Width	2.500m
Overall Body Height	3.540m
Min Body Ground Clearance	0.440m
Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	11.000m

Rev:	Description:	Date:	By:	Chkd:

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Status: PLANNING

Project: DIDSBURY TECHNOLOGY PARK

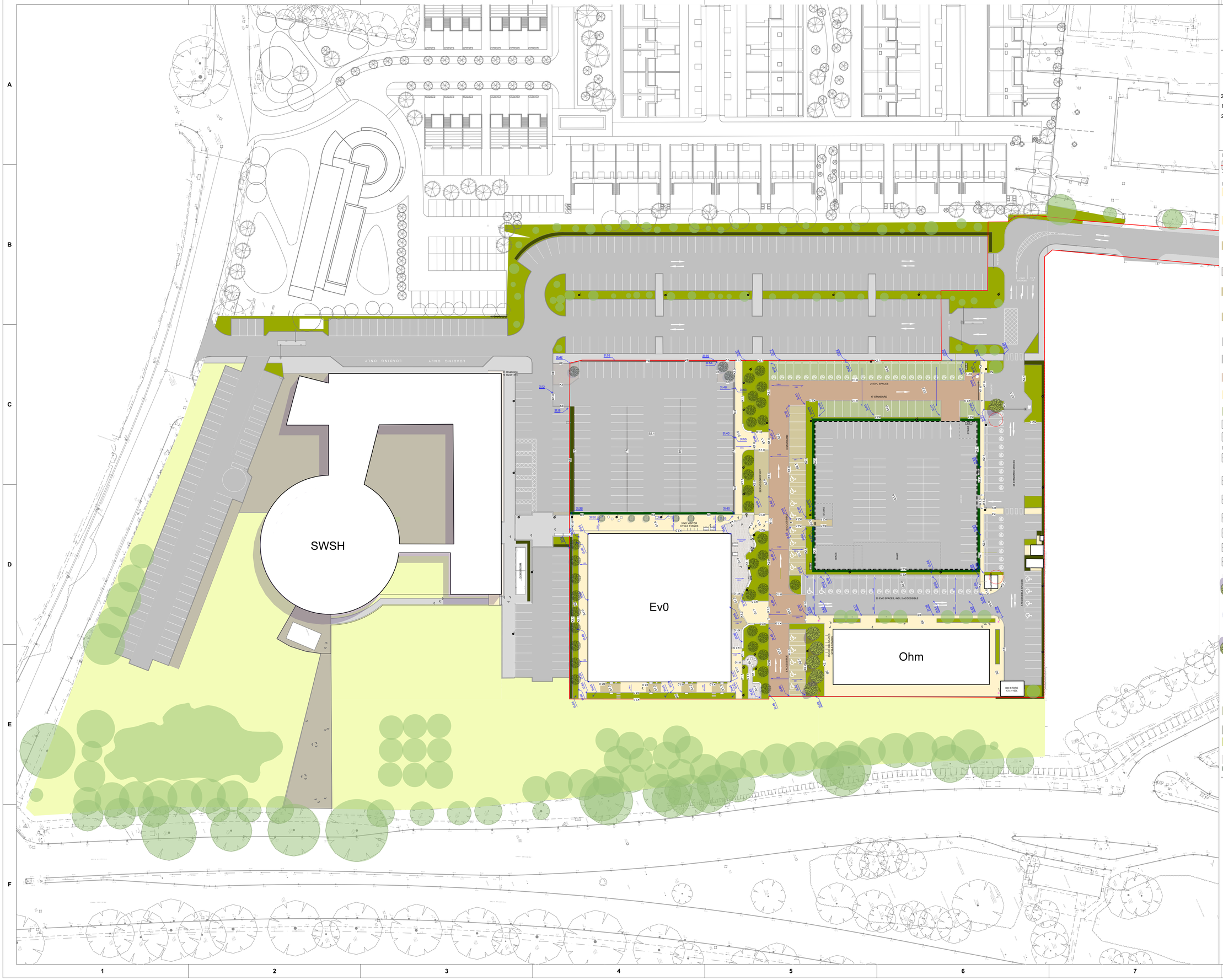
Drg Title: SWEPT PATH ANALYSIS 10m RIGID HGV

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	26/07/22	JM	JM	CP
Scale: SEE VIEWPORT				

Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
76910	- CUR -	XX -	00 -	D	- TP -	05006	- P01

\\mafs02\Projects\081001 - 082000\081025 - EVO Didsbury\04-Production\4A-Models-Drawings\TP\CAD\05)

Appendix A – Proposed Site Layout



NOTES:

1. DO NOT SCALE FROM THIS DRAWING. ALWAYS WORK TO NOTED DIMENSIONS.
2. ALL SETTING OUT, LEVELS AND DIMENSIONS TO BE CHECKED ON SITE PRIOR TO THE INSTALLATION OF MATERIALS AND ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE CONTRACT ADMINISTRATOR IMMEDIATELY.
3. THIS DRAWING MUST BE READ WITH THE RELEVANT SPECIFICATION DOCUMENTS AND DETAIL DRAWINGS. ANY DISCREPANCIES MUST BROUGHT TO THE ATTENTION OF THE CONTRACT ADMINISTRATOR IMMEDIATELY.
4. THIS DRAWING IS COPYRIGHT PROTECTED AND MAY NOT BE REPRODUCED IN WHOLE OR PART WITHOUT WRITTEN AUTHORITY.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.

THIS DRAWING WAS PLOTTED ON:

25/07/2022

REVISION HISTORY

DATE	REV	ZONE	DESCRIPTION	CHK
22/06/2022	22		Planning	CL
14/07/2022	23		Planning	CL
25/07/2022	24		Planning	CL

GENERAL INFORMATION

PLANNING APPLICATION BOUNDARY

HARDWORKS

S1.6 **BLOCK PAVING**
TO PEDESTRIAN PUBLIC REALM
Newgrange by Kilsaran to match existing paving on site. Unit size and bond TBC. Build up to suit drainage strategy and overrun by servicing/emergency vehicles. Price for rigid base.

S1.1 **PERMEABLE BLOCK PAVING**
TO PEDESTRIAN PUBLIC REALM
Clima Pave Newgrange by Kilsaran to match existing paving on site. Unit size and bond TBC. Build up to suit drainage strategy and overrun by servicing/emergency vehicles.

S1.2 **BLOCK PAVING**
TO PEDESTRIAN PUBLIC REALM
Newgrange by Kilsaran. Unit size and bond TBC. Build up to suit drainage strategy and overrun by servicing/emergency vehicles. Price for rigid base.

S1.3 **BLOCK PAVING**
TO PEDESTRIAN PUBLIC REALM
Newgrange by Kilsaran. Unit size and bond TBC. Build up to suit drainage strategy and overrun by servicing/emergency vehicles. Price for rigid base.

S2.0 **PERMEABLE BLOCK PAVING**
TO VEHICULAR DROP OFF
Clima Pave Newgrange by Kilsaran to match existing paving on site. Unit size and bond TBC. Build up to suit drainage strategy and frequent use by vehicles.

S2.1 **PERMEABLE BLOCK PAVING**
TO PARKING BAYS
Clima Pave Newgrange by Kilsaran to match existing paving on site. Unit size and bond TBC. Build up to suit drainage strategy and frequent use by vehicles.

S3.0 **MACADAM SURFACING - GREY COLOUR**
VEHICULAR GRADE
Impermeable with appropriate sub base to suit drainage strategy

S3.1 **PERMEABLE SURFACING**
TO TEMP CAR PARK
Compacted gravel.

S3.2 **MACADAM SURFACING - BUFF COLOUR**
VEHICLE GRADE
Impermeable surface with appropriate sub base

SE **EXISTING BLOCK PAVING**
NEWGRANGE BY KILSARAN
https://www.kilsaran.ie/project/siemens-wes t-didsbury/

S4.0 **GREEN GAP TYPE PAVING**
Permeable surface such as Hydro Lineo by Hardscape

T **INDICATIVE LOCATION FOR TACTILE PAVING**

STEPPING STONES - NATURAL STONE

EDGINGS

K1.0 **FLUSH KERB TYPE 1.0**
CONCRETE, SQUARE EDGE, LAID FLUSH WITH BOTH ADJOINING SURFACES. WIDER KERB TO BE USED IN HEAVILY TRAFFICKED VEHICLE AREAS (RAMBOLL REF CS2).

K1.1 **FLUSH KERB TYPE 1.1**
CONCRETE, SQUARE EDGE KERB, LAID FLUSH WITH ADJOING PAVING. RAIN GARDEN CHANNEL AT REDUCED DEPTH

K2.0 **UPSTAND KERB TYPE 2.0**
GRANITE, SQUARE EDGE KERB, LAID WITH UPSTAND AND WITH DRAINAGE CHANNELS AT 1M INTERVALS

K2.1 **UPSTAND KERB TYPE 2.1**
HALF BATTER CONCRETE KERB, LAID WITH UPSTAND

K2.2 **UPSTAND KERB TYPE 2.2**
CONCRETE KERB DRAIN

K3 **UPSTAND KERB TYPE 3**
STANDARD CONCRETE BULLNOSE KERB, LAID WITH UPSTAND

KE **EXISTING KERB RETAINED**

SOFTWORKS

SEMI-MATURE TREE TYPE 1
WITH TREE PIT WATER MANAGEMENT
35-40cm Girth, rootball with underground guying. Surface water attenuation to be incorporated into tree pit design by Green Blue Urban. Include for structural soil cells, irrigation and aeration to rooting area.

SEMI-MATURE TREE TYPE 2
WITH TREE PIT WATER MANAGEMENT
35-40cm Girth, rootball with underground guying. Surface water attenuation to be incorporated into tree pit design by Green Blue Urban. Include for structural soil cells, irrigation and aeration to rooting area.

MULTI STEM TREE TYPE 3
TO RAIN GARDENS
Height 300-350mm, rootball with underground guying.

MULTI STEM TREE IN PLANTER
TO NEW AREAS OF HARDWORKS
Height 300-350mm, rootball with underground guying.

EXISTING TREE - RETAINED

EXISTING TREE - REMOVED

SHRUB PLANTING
TO ALL NEW AREAS
Min 3L pots. 450mm depth topsoil. Bark mulch.

LAWN

RAIN GARDEN/OPEN CHANNEL
FOR SURFACE WATER ATTENUATION. Allow for 450mm depth topsoil. Sub base to suit drainage strategy

WILDFLOWER

PROPOSED HEDGE

LIGHTING & FURNITURE

LIGHTING COLUMN (CIRCULAR FITTING)
EXISTING TO BE RETAINED

FEATURE LIGHTING COLUMN
EXISTING TO BE RETAINED

LIGHTING COLUMN (STANDARD FITTING)
EXISTING TO BE RETAINED

PROPOSED LIGHTING COLUMN (TYPE 2)
TO MATCH EXISTING FEATURE COLUMN (BEGA)

PROPOSED LIGHTING COLUMN TYPE 3
TO MATCH EXISTING STANDARD FITTING

PROPOSED LIGHTING BOLLARD
TO MATCH FEATURE COLUMNS (BEGA)

CCTV **CCTV POST**
EXISTING TO BE RETAINED

BENCH
STONE WITH TIMBER TOPS.
Allow for 16No.

FEATURE SEATING
NATURAL STONE
Allow for 7No.

TABLE AND STOOLS OUTSIDE CAFE
HIGH LEVEL TIMBER AND STEEL
Allow for 4No. groupings

SHEFFIELD STYLE CYCLE HOOPS
VISITOR PROVISION IN PUBLIC REALM. Allow for 5No.

FEEDER PILLAR

TIMBER **TIMBER KNEE RAIL (APPROX 500MM ABOVE GL)**
Timber posts (100x100mm) with birds mouth top to receive timber rail (75 X 75mm)

LEVELS AND DRAINAGE

31.44 **EXISTING LEVEL**

31.44 **PROPOSED LEVEL**

INDICATIVE FALL

ORIGINATOR

Layer. studio

W layer.studio
T 01625 523 157
E manchester or newcastle@layer.studio

MANCHESTER
The Barn
One Hollin Lane
Styal
Cheshire
SK9 4JH

NEWCASTLE
The Studio
Low Shilford House
Stocksfield
Northumberland
NE43 7HW

CLIENT

BRUNTWOOD

PROJECT

DIDSBURY TECHNOLOGY PARK
MANCHESTER

DRAWING TITLE

EXTERNAL WORKS GENERAL ARRANGEMENT

DRAWING NUMBER	REV	STATUS
159-LYR-XX-XX-DWG-L-1008	24	PLANNING

SCALE	CREATED BY	CHECKED BY
1:500 @ A1	C LESTER	M WARNER

Appendix B – TfGM Accident Data

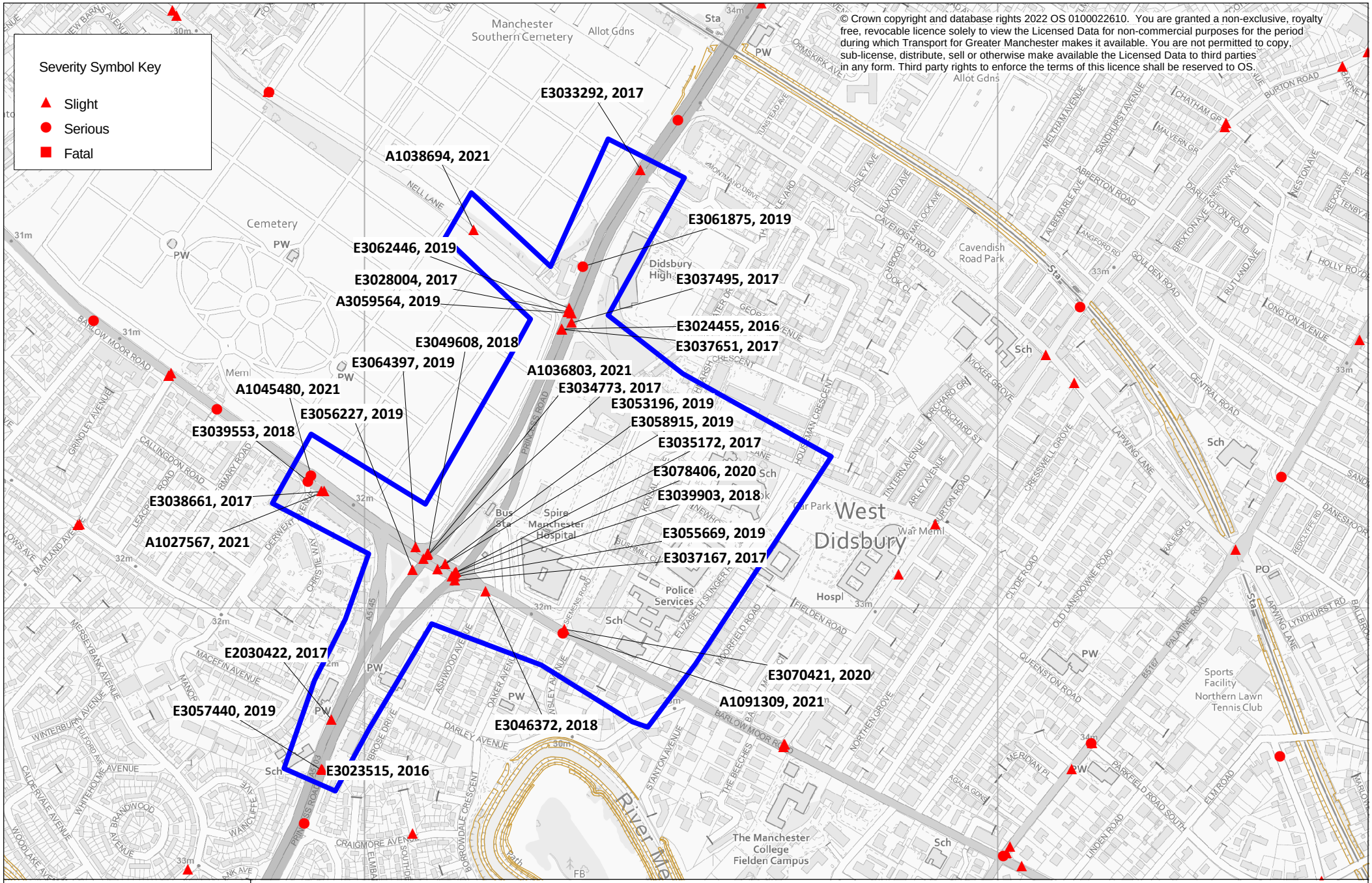
TRANSPORT FOR GREATER MANCHESTER



Traffic Accident Data for

Curtins Consulting

Reported Road Injury Accidents in Specified Area of Princess Road and Elizabeth Slinger Road, Manchester. 01/10/2016 to 30/09/2021



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Transport for Greater Manchester

Reported Injury Accidents in Specified Area Of Princess Road and Elizabeth Slinger Road, Manchester, from 01/10/2016 to 30/09/2021

Drawn By : liuj

Note: A road accident which occurs at or within 20m of a junction, is coded as a junction accident

Date : 22/06/2022

TRANSPORT FOR GREATER MANCHESTER

Transport for Greater Manchester

Reported Road Injury Accidents in Specified Area of Princess Road and Elizabeth Slinger Road, Manchester. 01/10/2016 to 30/09/2021

Injury Accidents	Oct - Dec 2016	2017	2018	2019	2020	Jan - Sep 2021	Total
Fatal	0	0	0	0	0	0	0
Serious	0	0	1	1	0	2	4
Slight	2	9	3	8	2	3	27
Total	2	9	4	9	2	5	31

Standard Totals Report : Reported Injury Accidents in Specified Area Of Princess Road and Elizabeth Slinger Road, Manchester, from 01/10/2016 to 30/09/2021

Accidents

Serious	4
Slight	27
Total Accidents	**31**

Casualties By Age and Sex

Severity	0 - 15	16 - 59	60 - 69	70 +	Total
Serious					
Male	0	3	0	0	3
Female	0	1	0	0	1
Total	**0**	**4**	**0**	**0**	**4**
Slight					
Male	0	26	1	1	28
Female	2	10	0	1	13
Total	**2**	**36**	**1**	**2**	**41**
Total Casualties	**2**	**40**	**1**	**2**	**45**

Casualties By Age and Class

Severity	0 - 15	16 - 59	60 - 69	70 +	Total
Serious					
Driver or rider	0	3	0	0	3
Pedestrian	0	1	0	0	1
Total	**0**	**4**	**0**	**0**	**4**
Slight					
Driver or rider	0	25	1	1	27
Veh or pillion pas	2	11	0	1	14
Total	**2**	**36**	**1**	**2**	**41**
Total Casualties	**2**	**40**	**1**	**2**	**45**

Cyclist (Rider and Pillion) and Pedestrian Casualties By Age

Severity	0 - 15	16 - 59	60 - 69	70 +	Total
Serious	0	2	0	0	2
Slight	0	1	0	0	1
Total Casualties	**0**	**3**	**0**	**0**	**3**

Casualties Broken Down By Type

Car (Driver)	**0-15**	**16+**	**Total**
Serious	0	1	1
Slight	0	23	23
Total	**0**	**24**	**24**
Car (Passenger)	**0-15**	**16+**	**Total**
Slight	2	12	14
Total	**2**	**12**	**14**
Pedestrian	**0-15**	**16+**	**Total**
Serious	0	1	1
Total	**0**	**1**	**1**
TWPV (Rider)	**0-15**	**16+**	**Total**
Serious	0	1	1
Slight	0	2	2
Total	**0**	**3**	**3**
Cyclist (Rider)	**0-15**	**16+**	**Total**
Serious	0	1	1
Slight	0	1	1
Total	**0**	**2**	**2**
Other (Driver)	**0-15**	**16+**	**Total**
Slight	0	1	1
Total	**0**	**1**	**1**
Total	**2**	**43**	**45**

Standard Report - Reported Injury Accidents in Specified Area Of Princess Road and Elizabeth Slinger Road, Manchester, from 01/10/2016 to 30/09/2021

This printout has been generated from the Transport for Greater Manchester's database of road traffic accident records using the query system, GMAXI.

The road traffic accident database contains STATS19 data supplied by Greater Manchester Police and further validated by the Highways Forecasting and Analytical Services (HFAS) section of Transport for Greater Manchester. It is maintained by HFAS on behalf of the ten District Councils in Greater Manchester.

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Accident Reference Number: E3039553 **Day:** Tuesday **Date:** 16/01/2018 **Time:** 16:45
Place Reported: Else **District:** Manchester
Location: Barlow Moor Road at junction with Derwent Avenue
Description: V1 Trav Ne On Derwent Ave Turns Left & Collides With V2 (Pedal Cycle) Trav Nw On Barlow Moor Rd.

Locational Details

Road:	A5145/U	Junction Details:	Tjun
OSGR:	382910 392200	Junction Control:	TS
Speed Limit:	30	Ped Crossing:	TSX

Conditions

Road Surface:	Wet
Light Conditions:	Dark
Weather Conditions:	R&W

Accident Details

Severity:	Serious
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref

Vehicle Details

Type	Move	From	To	Skid
Car	TurnL	SW	NW	
p/c	Ahead	SE	NW	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Rid	M	39	Serious	

Accident Reference Number: A1045480 **Day:** Friday **Date:** 30/04/2021 **Time:** 18:40
Place Reported: Self **District:** Manchester
Location: Barlow Moor Road 10 metres NW Of Derwent Avenue
Description: Both Vehs Trav Se Barlow Moor Rd Approaching Jct, V2 Trav Behind & Collides With Rear Of V1. V2 Fts

Locational Details

Road:	A5145/U	Junction Details:	Tjun
OSGR:	382915 392209	Junction Control:	TS
Speed Limit:	30	Ped Crossing:	TSX

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Serious
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref

Vehicle Details

Type	Move	From	To	Skid
Car	Ahead	NW	SE	
Car	Ahead	NW	SE	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	F	59	Serious	Un

Accident Reference Number: E3057440 **Day:** Wednesday **Date:** 22/05/2019 **Time:** 18:08
Place Reported: Scene **District:** Manchester
Location: Princess Road 95 metres NE Of Mersey Crescent
Description: Both Vehs Trav Sw Princess Rd Towards Princess Parkway, V1 Comes To Stop & V2 Collides With Rear Of V1

Locational Details

Road:	A5103		Junction Details:		
OSGR:	382931	391744	Junction Control:	n/a	
Speed Limit:	40		Ped Crossing:		

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	2

Contributory Factors

Factor	Conf	Ref
DBrake	Poss	V1
DFast	Poss	V2

Vehicle Details

Type	Move	From	To	Skid
Car	Ahead	NE	SW	
Car	Ahead	NE	SW	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Drv	F	21	Slight	
2	Pas	F	19	Slight	

Accident Reference Number: E3038661 **Day:** Monday **Date:** 27/11/2017 **Time:** 12:30
Place Reported: Else **District:** Manchester
Location: Barlow Moor Road at junction with Derwent Avenue
Description: V1 Trav Ne Derwent Ave Undertakes U Turn At Jct With Barlow Moor Rd, Back Into Derwent Ave & Collides With V2 Trav Nw Barlow Moor Rd. V1 FTS.

Locational Details

Road:	A5145/U		Junction Details:	Tjun	
OSGR:	382931	392184	Junction Control:	TS	
Speed Limit:	30		Ped Crossing:	TSX	

Conditions

Road Surface:	Wet
Light Conditions:	Light
Weather Conditions:	Rain

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref

Vehicle Details

Type	Move	From	To	Skid
Car	Uturn	SW	SW	
Car	Ahead	SE	NW	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Drv	M	58	Slight	

Accident Reference Number: E3023515 **Day:** Thursday **Date:** 03/11/2016 **Time:** 18:20
Place Reported: Else **District:** Manchester
Location: Princess Road 95 metres North East of Mersey Crescent
Description: V1 And V2 Trav Sw Princess Rd When V2 Hit V1 In Rear

Locational Details

Road:	A5103		Junction Details:		
OSGR:	382933	391743	Junction Control:	n/a	
Speed Limit:	40		Ped Crossing:		

Conditions

Road Surface:	Wet
Light Conditions:	Dark
Weather Conditions:	Rain

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref

Vehicle Details

Type	Move	From	To	Skid
Car	Waitg	NE	SW	
Car	Start	NE	SW	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Drv	F	20	Slight	

Accident Reference Number: A1027567 **Day:** Tuesday **Date:** 09/03/2021 **Time:** 16:00
Place Reported: Else **District:** Manchester
Location: Barlow Moor Road 5 metres SE Of Derwent Avenue
Description: Both Vehs Trav Nw Barlow Moor Rd Approaching Jct With Derwent Ave, V2 Turns Left Onto Derwent Ave & N/s Collides With O/s Of V1 (Pedal Cycle). V2 Fts

Locational Details

Road:	A5145/U		Junction Details:	Tjun	
OSGR:	382936	392184	Junction Control:	TS	
Speed Limit:	30		Ped Crossing:	TSX	

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref

Vehicle Details

Type	Move	From	To	Skid
p/c	Ahead	SE	NW	
Car	TurnL	SE	SW	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Rid	M	26	Slight	Un

Accident Reference Number: E2030422 **Day:** Saturday **Date:** 13/05/2017 **Time:** 20:50

Place Reported: Scene **District:** Manchester

Location: Princess Road 70 metres South of Darley Avenue

Description: All Vehs Trav N Princess Rd. V1 Sights V2 (police Car) And Makes Off. Pursuit Ensures And V1 Hits Rear Of V3. Occupants Of V1 Abandon Vehicle.

Locational Details

Road:	A5103	Junction Details:			
OSGR:	382947 391823	Junction Control:	n/a		
Speed Limit:	40	Ped Crossing:			

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	3
No. of Casualties:	4

Contributory Factors

Factor	Conf	Ref
VCrime	VLike	V1
DAggre	VLike	V1

Vehicle Details

Type	Move	From	To	Skid
Car	Ahead	S	N	Skid
Car	Ahead	S	N	
Car	Waitg	S	N	

Casualty Details

Type	Sex	Age	Sev	Pupil
4 Drv	M	25	Slight	
1 Drv	M	23	Slight	
2 Pas	M	24	Slight	
3 Pas	M	25	Slight	

Accident Reference Number: E3056227 **Day:** Wednesday **Date:** 24/04/2019 **Time:** 14:42

Place Reported: Else **District:** Manchester

Location: Princess Road 15 metres SW Of Barlow Moor Road

Description: Both Vehs Trav Ne Princess Rd, V2 Slows To Stop At Red Ats, V1 Behind Fails To Stop & Collides With Rear Of V2. V1 FTS

Locational Details

Road:	A5103/A5145	Junction Details:	Xrds		
OSGR:	383076 392060	Junction Control:	TS		
Speed Limit:	40	Ped Crossing:	TSX		

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref

Vehicle Details

Type	Move	From	To	Skid
Car	Ahead	SW	NE	
Car	Waitg	SW	NE	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	M	65	Slight	

Accident Reference Number: E3064397 **Day:** Tuesday **Date:** 05/11/2019 **Time:** 11:49

Place Reported: Scene **District:** Manchester

Location: Barlow Moor Road 20 metres NW Of Princess Road

Description: Both Vehs Trav Se Barlow Moor Rd Approaching Jct, N/s Of V1 Collides With O/s Of V2

Locational Details

Road:	A5145/A5103	Junction Details:	Xrds		
OSGR:	383080 392096	Junction Control:	TS		
Speed Limit:	40	Ped Crossing:	TSX		

Conditions

Road Surface:	Wet
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DRain	Poss	V2
DFLoo	Poss	V1
DFLoo	Poss	V2

Vehicle Details

Type	Move	From	To	Skid
Car	Ahead	NW	SE	
Car	Ahead	NW	SE	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	M	52	Slight	

Accident Reference Number: E3034773 **Day:** Tuesday **Date:** 05/09/2017 **Time:** 21:40

Place Reported: Scene **District:** Manchester

Location: Barlow Moor Road at junction with Princess Road

Description: V1 Trav Nw Barlow Moor Rd And V2 Trav Ne Princess Rd. V1 Turns Right Into Path Of V2 And Collides With V2.

Locational Details

Road:	A5145/A5103	Junction Details:	Xrds		
OSGR:	383093 392077	Junction Control:	TS		
Speed Limit:	40	Ped Crossing:	TSX		

Conditions

Road Surface:	Wet
Light Conditions:	Dark
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DDisO	Poss	V1
DFLoo	VLike	V1

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	SE	NE	
Taxi	Ahead	SW	NE	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Pas	M	21	Slight	

Accident Reference Number: A1036803 **Day:** Wednesday **Date:** 24/03/2021 **Time:** 10:45
Place Reported: Scene **District:** Manchester
Location: Barlow Moor Road at junction Princess Road
Description: V2 Trav Se Barlow Moor Rd, V1 Trav Nw Barlow Moor Rd Turns Right Onto Princess Rd & Across Path Of V2. Front Of V1 Collides With O/s Of V2

Locational Details

Road:	A5145/A5103	Junction Details:	Xrds
OSGR:	383099 392083	Junction Control:	TS
Speed Limit:	30	Ped Crossing:	TSX

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	2

Contributory Factors

Factor	Conf	Ref
DJudge	Poss	V1
DStat	Poss	V1
DStat	Poss	V2

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	SE	NE	
Car	Ahead	NW	SE	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Drv	M	78	Slight	Un
2	Pas	F	73	Slight	Un

Accident Reference Number: E3049608 **Day:** Wednesday **Date:** 24/10/2018 **Time:** 15:00
Place Reported: Scene **District:** Manchester
Location: Barlow Moor Road at junction with Princess Road
Description: V1 Trav Nw Barlow Moor Rd Turns Right Onto Princess Rd & Collides O/s V2 Trav Se Barlow Moor Rd Across Jct

Locational Details

Road:	A5145/A5103	Junction Details:	Mult
OSGR:	383100 392085	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	3

Contributory Factors

Factor	Conf	Ref
DTurn	VLike	V1
DJudge	VLike	V1

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	SE	NE	
Car	Ahead	NW	SE	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Drv	F	31	Slight	
3	Pas	F	5	Slight	
2	Drv	F	29	Slight	

Accident Reference Number: E3053196 **Day:** Monday **Date:** 21/01/2019 **Time:** 12:20
Place Reported: Else **District:** Manchester
Location: Barlow Moor Road at junction with Princess Road
Description: All Vehs Trav Nw Barlow Moor Rd, V1 Stationary Behind Learner Driver, V2 Behind V1, V3 Behind V2 Hits Back Of V2 Pushing It Into V1. V3 Fts

Locational Details

Road:	A5145/A5103	Junction Details:	Xrds
OSGR:	383115 392061	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	3
No. of Casualties:	2

Contributory Factors

Factor	Conf	Ref

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	SE	NW	
Car	Ahead	SE	NW	
Car	Ahead	SE	NW	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Drv	M	39	Slight	
2	Drv	M	55	Slight	

Accident Reference Number: E3058915 **Day:** Tuesday **Date:** 09/07/2019 **Time:** 15:40
Place Reported: Else **District:** Manchester
Location: Barlow Moor Road 20 metres NW Of Princess Road
Description: Both Vehs Trav Se Barlow Moor Rd, V1 Waiting To Go Ahead But Held Up, V2 Collides With Rear Of V1. V2 Fts

Locational Details

Road:	A5145/A5103	Junction Details:	Xrds
OSGR:	383127 392069	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref

Vehicle Details

Type	Move	From	To	Skid
Car	Waitg	NW	SE	
Car	Ahead	NW	SE	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Drv	M	45	Slight	

Accident Reference Number: E3039903 **Day:** Friday **Date:** 12/01/2018 **Time:** 18:40
Place Reported: Scene **District:** Manchester
Location: Princess Road at junction with Barlow Moor Road
Description: V1 (Police) Trav Se On Barlow Moor Rd Turns Right Across Path Of V2 Trav Nw Barlow Moor Rd & Collides Mid Junction.

Locational Details

Road:	A5103/A5145	Junction Details:	Xrds
OSGR:	383138 392050	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Dry
Light Conditions:	Dark
Weather Conditions:	Othr

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	NW	SW	
Car	Ahead	SE	NW	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	F	30	Slight	

Accident Reference Number: E3037167 **Day:** Sunday **Date:** 29/10/2017 **Time:** 01:30
Place Reported: Scene **District:** Manchester
Location: Barlow Moor Road at junction with Princess Road
Description: V1 Trav Se Barlow Moor Rd Turns Right Onto Princess Rd - Mid-jct Loses Control Overturns, Hit Road Traffic Sign Coming To Rest On Its Roof.

Locational Details

Road:	A5145/A5103	Junction Details:	Xrds
OSGR:	383142 392043	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Wet
Light Conditions:	Dark
Weather Conditions:	Rain

Accident Details

Severity:	Slight
No. of Vehicles:	1
No. of Casualties:	2

Contributory Factors

Factor	Conf	Ref
DFast	Poss	V1
Slip	VLike	V1
DSpee	Poss	V1

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	NW	SW	S&O

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	M	19	Slight	
2 Pas	M	20	Slight	

Accident Reference Number: E3055669 **Day:** Thursday **Date:** 11/04/2019 **Time:** 14:20
Place Reported: Scene **District:** Manchester
Location: Barlow Moor Road at junction with Princess Road
Description: V1 Trav Se Barlow Moor Rd Turns Right Onto Princess Rd & Collides With O/s Of V2 (LGV) Trav Nw Barlow Moor Rd

Locational Details

Road:	A5145/A5103	Junction Details:	Xrds
OSGR:	383142 392049	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DATS	Poss	V1
DATS	Poss	V2
DSpee	Poss	V2
DFLoo	VLike	V1
DJudge	VLike	V1
DTired	Poss	V1

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	NW	SW	
LGV	Ahead	SE	NW	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	M	47	Slight	

Accident Reference Number: E3035172 **Day:** Tuesday **Date:** 05/09/2017 **Time:** 09:44
Place Reported: Scene **District:** Manchester
Location: Princess Road at junction with Barlow Moor Road
Description: V2 Trav Se Barlow Moor Rd Turns Right Into Path Of V1 Trav Sw Princess Road. V2 Collides With V1. V1 Flees The Scene.

Locational Details

Road:	A5103/A5145	Junction Details:	Xrds
OSGR:	383142 392055	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DTurn	VLike	V1
DFLoo	VLike	V1
DCare	VLike	V1

Vehicle Details

Type	Move	From	To	Skid
Car	Ahead	NE	SW	
Car	TurnR	NW	SW	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	M	35	Slight	

Accident Reference Number: E3078406 **Day:** Thursday **Date:** 12/11/2020 **Time:** 17:00

Place Reported: Scene **District:** Manchester

Location: Princess Rd at junction with Barlow Moor Rd

Description: V2 (LGV) Trav S Princess Rd Towards Jct With Barlow Moor Rd, V1 Trav N Princess Rd Turns Right Onto Barlow Moor Rd At Filter Lane & Collides With Front Of V2

Locational Details

Road:	A5103/A5145	Junction Details:	Mult
OSGR:	383144 392056	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Wet
Light Conditions:	Dark
Weather Conditions:	Rain

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DGWor	VLike	V1

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	S	E	
LGV	Ahead	N	S	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	M	25	Slight	

Accident Reference Number: A1038694 **Day:** Thursday **Date:** 15/04/2021 **Time:** 15:40

Place Reported: Self **District:** Manchester

Location: Nell Lane 190 metres SW Of Princess Road

Description: Both Vehs Trav Sw Nell La, V1 Trav Behind V2, V1 Collides With Rear Of V2

Locational Details

Road:	C	Junction Details:	
OSGR:	383172 392598	Junction Control:	n/a
Speed Limit:	30	Ped Crossing:	

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DFLoo	Poss	V1

Vehicle Details

Type	Move	From	To	Skid
Car	Ahead	NE	SW	
Car	Ahead	NE	SW	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	F	29	Slight	Un

Accident Reference Number: E3046372 **Day:** Wednesday **Date:** 11/07/2018 **Time:** 15:36

Place Reported: Scene **District:** Manchester

Location: Barlow Moor Road at junction with Ashwood Avenue

Description: V1 Trav Se Barlow Moor Rd Turns Right Twds Ashwood Ave, Across Path Of V2 Trav Nw Barlow Moor Rd. V2 Brakes But Collides With V1

Locational Details

Road:	A5145/U	Junction Details:	Tjun
OSGR:	383191 392026	Junction Control:	GW
Speed Limit:	30	Ped Crossing:	TSX

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	2

Contributory Factors

Factor	Conf	Ref
DTurn	VLike	V1
DFLoo	Poss	V1
DJudge	VLike	V1

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	NW	SW	
Car	Ahead	SE	NW	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	M	55	Slight	
2 Pas	F	12	Slight	

Accident Reference Number: E3024455 **Day:** Tuesday **Date:** 06/12/2016 **Time:** 19:40

Place Reported: Scene **District:** Manchester

Location: Princess Road at Junction with Nell Lane

Description: Both Vehs Trav Ne On Princess Rd In Adjacent Lanes. V1 (HGV) Swerves To Nearside And Into Path Of V2. Collisiion Occurs.

Locational Details

Road:	A5103/C	Junction Details:	Xrds
OSGR:	383311 392441	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Wet
Light Conditions:	Dark
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DTurn	VLike	V1
DFLoo	VLike	V1
DJudge	VLike	V1
DCare	VLike	V1
DSwer	VLike	V1
DDisIn	Poss	V1

Vehicle Details

Type	Move	From	To	Skid
HGV	Ahead	SW	NE	
Car	Ahead	SW	NE	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	M	58	Slight	

Accident Reference Number: E3037651 **Day:** Saturday **Date:** 25/11/2017 **Time:** 11:30

Place Reported: Scene **District:** Manchester

Location: Princess Road at junction with Nell Lane

Description: All Vehs Trav Ne Princess Rd. V1 Slows & Stops At Red Ats, V2 Collides With Rear Of V1, Then V3 Collides In Rear Of V2

Locational Details

Road:	A5103/C	Junction Details:	Xrds
OSGR:	383312 392440	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Wet
Light Conditions:	Light
Weather Conditions:	Snow

Accident Details

Severity:	Slight
No. of Vehicles:	3
No. of Casualties:	3

Contributory Factors

Factor	Conf	Ref
DFLoo	VLike	V2
DRain	Poss	V2

Vehicle Details

Type	Move	From	To	Skid
Car	Stopg	SW	NE	Skid
Car	Ahead	SW	NE	Skid
Car	Ahead	SW	NE	Skid

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Pas	M	27	Slight	
2	Pas	M	27	Slight	
3	Pas	F	27	Slight	

Accident Reference Number: A1091309 **Day:** Thursday **Date:** 19/08/2021 **Time:** 21:00

Place Reported: Scene **District:** Manchester

Location: Barlow Moor Road at junction with Entrance To The Spire Hospital, 18 metres NW Of Rowsley Avenue

Description: V1 (Motorcycle) Trav Nw Barlow Moor Rd. V2 Trav Sw Exits Entrance Of Spire Hospital To T/R Onto Barlow Moor Rd & Across Path Of V1. Front Of V2 Hits Front Of V1

Locational Details

Road:	B5217/U	Junction Details:	ent
OSGR:	383313 391960	Junction Control:	GW
Speed Limit:	30	Ped Crossing:	

Conditions

Road Surface:	Wet
Light Conditions:	Dark
Weather Conditions:	Fine

Accident Details

Severity:	Serious
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DFLoo	Poss	V2
DJudge	Poss	V2
DFast	Poss	V1

Vehicle Details

Type	Move	From	To	Skid
m/cl	Ahead	SE	NW	
Car	TurnR	NE	NW	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Rid	M	39	Serious	Un

Accident Reference Number: E3070421 **Day:** Saturday **Date:** 11/04/2020 **Time:** 10:56

Place Reported: Scene **District:** Manchester

Location: Barlow Moor Road at junction with Siemens Road, 17 metres W Of Rowsley Avenue

Description: V1 Trav E Barlow Moor Rd, V2 Trav S-bd Towards Jct With Barlow Moor Rd, V2 Exits From Siemens Rd, Front Of V2 Collides With N/s Of V1

Locational Details

Road:	A5145/U	Junction Details:	ent
OSGR:	383316 391966	Junction Control:	GW
Speed Limit:	30	Ped Crossing:	

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DFLoo	Poss	V2
DTurn	Poss	V2

Vehicle Details

Type	Move	From	To	Skid
Car	Ahead	W	E	
Car	Start	N	S	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Pas	M	33	Slight	

Accident Reference Number: E3028004 **Day:** Wednesday **Date:** 22/02/2017 **Time:** 08:42

Place Reported: Scene **District:** Manchester

Location: Princess Road at junction with Nell Lane

Description: Both Vehs Trav Ne Princess Rd, V1 Turns Right Into Nell La In Front Of V2, Collision Occurs

Locational Details

Road:	A5103/C	Junction Details:	Xrds
OSGR:	383321 392468	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DFLoo	VLike	V1
DTurn	VLike	V1

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	SW	SE	
Car	Ahead	SW	NE	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Drv	M	36	Slight	

Accident Reference Number: E3062446 **Day:** Saturday **Date:** 08/06/2019 **Time:** 10:35
Place Reported: Else **District:** Manchester
Location: Princess Road at junction with Nell Lane
Description: Both Vehs Trav Ne Princess Rd, V2 Stops At Mid Jct, V1 Collides With Rear Of V2. V1 FTS

Locational Details

Road:	A5103/C	Junction Details:	Xrds		
OSGR:	383323 392474	Junction Control:	TS		
Speed Limit:	40	Ped Crossing:	TSX		

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref

Vehicle Details

Type	Move	From	To	Skid
Car	Ahead	SW	NE	
Car	Stopg	SW	NE	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Drv	F	20	Slight	

Accident Reference Number: E3037495 **Day:** Tuesday **Date:** 14/11/2017 **Time:** 18:34
Place Reported: Scene **District:** Manchester
Location: Princess Road at junction with Nell Lane
Description: V1 Trav Se Nell La Turns Right Onto Princess Rd Crossing Path Of V2 Trav Nw Nell La. V2 Collides With V1

Locational Details

Road:	A5103/C	Junction Details:	Xrds		
OSGR:	383327 392451	Junction Control:	TS		
Speed Limit:	40	Ped Crossing:	Ref		

Conditions

Road Surface:	Wet
Light Conditions:	Dark
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DFLoo	VLike	V1
DJudge	Poss	V1
DLearn	Poss	V2

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	NW	SW	
m/s	Ahead	SE	NW	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Rid	M	25	Slight	

Accident Reference Number: A3059564 **Day:** Monday **Date:** 29/07/2019 **Time:** 19:20
Place Reported: Scene **District:** Manchester
Location: Princess Road at junction with Nell Lane
Description: Both Vehs Trav Se Nell La Turns Right Onto Princess Rd, V2 (Motorcycle) On N/s Of V1, When V1 Commences To Turn Right, Front Of V1 Collides O/s Of V2

Locational Details

Road:	A5103/C	Junction Details:	Xrds		
OSGR:	383327 392466	Junction Control:	TS		
Speed Limit:	40	Ped Crossing:	Ref		

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DTurn	VLike	V2
DCare	Poss	V2

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	NW	SW	
m/s	TurnR	NW	SW	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Rid	M	28	Slight	

Accident Reference Number: E3061875 **Day:** Friday **Date:** 06/09/2019 **Time:** 17:18
Place Reported: Else **District:** Manchester
Location: Princess Road 65 metres NE Of Nell Lane
Description: V1 (PCV) Trav Ne Princess Rd, C1 (Pedestrain) Steps Into Road To Avoid Puddle Heading N-bd. Collision Occurs

Locational Details

Road:	A5103	Junction Details:			
OSGR:	383345 392540	Junction Control:	n/a		
Speed Limit:	40	Ped Crossing:			

Conditions

Road Surface:	Dry
Light Conditions:	Light
Weather Conditions:	Fine

Accident Details

Severity:	Serious
No. of Vehicles:	1
No. of Casualties:	1

Contributory Factors

Factor	Conf	Ref
DFLoo	VLike	V1
PJudge	VLike	C1

Vehicle Details

Type	Move	From	To	Skid
PCV	Ahead	SW	NE	

Casualty Details

Type	Sex	Age	Sev	Pupil
1 Ped	M	28	Serious	

Accident Reference Number: E3033292 **Day:** Wednesday **Date:** 26/07/2017 **Time:** 10:13

Place Reported: Scene **District:** Manchester

Location: Princess Road at junction with The Boulevard

Description: V2 Trav Ne Princess Rd Twds Manchester Green Ats. V1 Trav Nw The Boulevard Turns Right Onto Princess St On Red Ats And Collides With V2

Contributory Factors

Factor	Conf	Ref
DAlcoh	VLike	V1

Vehicle Details

Type	Move	From	To	Skid
Car	TurnR	SE	NE	
Car	Ahead	SW	NE	

Casualty Details

	Type	Sex	Age	Sev	Pupil
1	Drv	M	48	Slight	
2	Pas	M	30	Slight	
3	Pas	F	30	Slight	

Locational Details

Road:	A5103/U	Junction Details:	Tjun
OSGR:	383436 392693	Junction Control:	TS
Speed Limit:	40	Ped Crossing:	TSX

Conditions

Road Surface:	Wet
Light Conditions:	Light
Weather Conditions:	Rain

Accident Details

Severity:	Slight
No. of Vehicles:	2
No. of Casualties:	3

Abbreviations used in GMAXI Reports for New Contributory Factors - 2005/06

WARNING: Please note that -
Codes 101 to 999 only relate to accidents from 1 April 2005. - New National Factors introduced by DfT
Codes 1001 to 1154 relate to accidents from 1 April 1999 to 31 March 2005 only. - Local Factors introduced
Accidents before 1 April 1999 do not have contributory factors attached.

Code	ContribFactor1Name	ContribFactor1Abb
0	None	
101	Poor or defective road surface	Surf
102	Deposit on road (eg oil, mud, chippings)	Dposit
103	Slippery road (due to weather)	Slip
104	Inadequate/masked signs or road markings	Mark
105	Defective traffic signals	DefATS
106	Traffic calming (eg speed cushions, road humps, chicanes)	TCalm
107	Temporary road layout (eg contraflow)	TmpRd
108	Road layout (eg bend, hill, narrow carriageway)	RdLay
109	Animal or object in carriageway	ObjInC
201	Tyres illegal, defective or under inflated	VTyres
202	Defective lights or indicators	VLight
203	Defective brakes	VBrake
204	Defective steering or suspension	VSteer
205	Defective or missing mirrors	VMirr
206	Overloaded or poorly loaded vehicle or trailer	VLoad
301	Disobeyed automatic traffic signal	DATS
302	Disobeyed Give Way or Stop sign or markings	DGWorS
303	Disobeyed double white line	DWhite
304	Disobeyed pedestrian crossing facility	DPedX
305	Illegal turn or direction of travel	DITurn
306	Exceeding speed limit	DSpeed
307	Travelling too fast for conditions	DFast
308	Following too close	DTgate
309	Vehicle travelling along pavement	DPave
310	Cyclist entering road from pavement	DCPave
401	Junction overshoot	DJnOvr
402	Junction restart	DJnRst
403	Poor turn or manoeuvre	DTurn
404	Failed to signal/misleading signal	DSign
405	Failed to look properly	DFLook
406	Failed to judge other person's path or speed	DJudge
407	Passing too close to cyclist, horse rider or pedestrian	DClose
408	Sudden braking	DBrake
409	Swerved	DSwerv
410	Loss of control	DLossC
501	Impaired by alcohol	DAlcoh
502	Impaired by drugs (illicit or medicinal)	DDrugs
503	Fatigue	DTired
504	Uncorrected, defective eyesight	DEye
505	Illness or disability, mental or physical	DIllns
506	Not displaying lights at night or in poor visibility	DNoLit
507	Cyclist wearing dark clothing at night	DCDark
508	Driver using mobile phone	DMobPh
509	Distraction in vehicle	DDisIn
510	Distraction outside vehicle	DDisOu
601	Aggressive driving	DAggre
602	Careless/reckless/in a hurry	DCare

603	Nervous/uncertain/panic	DPanic
604	Driving too slow or conditions or slow vehicle (eg tractor)	DSlow
605	Learner or inexperienced driver/rider	DLearn
606	Inexperience of driving on the left	DInDrL
607	Inexperience with type of vehicle	DInVeh
701	Stationary or parked vehicle(s)	DStat
702	Vegetation	DVeg
703	Road layout (eg bend, winding road, hill crest)	DRdLay
704	Buildings, road signs, street furniture	DBuild
705	Dazzling headlights	DHLigt
706	Dazzling sun	DSun
707	Rain, sleet, snow, or fog	DRain
708	Spray from other vehicles	DFog
709	Visor or windscreen dirty or scratched	DSpray
710	Vehicle blind spot	DWscrn
801	Crossed road masked by stationary or parked vehicle	PXMask
802	Failed to look properly	PFLook
803	Failed to judge vehicle's path or speed	PJudge
804	Wrong use of pedestrian crossing facility	PPedX
805	Dangerous action in carriageway (eg playing)	PDange
806	Impaired by alcohol	PAlcoh
807	Impaired by drugs (illicit or medicinal)	PDrugs
808	Careless/reckless/in a hurry	PCare
809	Pedestrian wearing dark clothing at night	PCloth
810	Disability or illness, mental or physical	PIllns
901	Stolen vehicle	StoVeh
902	Vehicle in course of crime	VCrime
903	Emergency vehicle on call	EmVeh
904	Vehicle door opened or closed negligently	VDoor
999	Other	Other
1001	Failed to stop (mandatory sign)	Fstop
1002	Failed to give way	Fgive
1003	Failed to avoid pedestrian (pedestrian not to blame)	FAPed
1004	Failed to avoid vehicle or object in carriageway	FAObj
1005	Failure to signal/misleading signal	Fsig
1006	Loss of control of vehicle	Loss
1007	Pedestrian entered carriageway without due care	Ped
1008	Passenger fell in or near PSV	Pfell
1009	Swerved to avoid object in carriageway	Swerv
1010	Sudden braking	Brake
1011	Poor turn/manoeuvre	Turn
1012	Poor overtaking	Over
1013	Drove wrong way (e.g. 1-way street)	1Way
1014	Opening door carelessly	Door
1015	Other	Other
1101	Impairment alcohol	Alcoh
1102	Impairment drugs	Drugs
1103	Impairment fatigue	Tired
1104	Impairment illness	Ill
1105	Distraction stress/emotional state of mind	Stress
1106	Distraction physical in/on vehicle	DPhIn
1107	Distraction physical outside vehicle	DPhOut
1108	Behaviour panic	Panic
1109	Behaviour careless/thoughtless/reckless	Care
1110	Behaviour nervous/uncertain	Nerve
1111	Behaviour in a hurry	Hurry

1112	Failure to judge other person's path or speed	Fjudg
1113	Disability	Disab
1114	Failed to look	F2look
1115	Looked but did not see	Nsee
1116	Inattention	Inatt
1117	Person hit wore dark or inconspicuous clothing	Cloth
1118	Other (Personal details)	Pother
1119	Crossed from behind parked vehicle etc	Cross
1120	Ignored lights at crossing	Xlight
1121	Excessive Speed	Speed
1122	Following too close	Tgate
1123	Inexperience of driving	InDri
1124	Inexperience of vehicle	InVeh
1125	Interaction or competition with other road users	Users
1126	Aggressive driving	Aggr
1127	Lack of judgement of own path	Judge
1128	Tyres wrong pressure	Press
1129	Tyres deflation before impact	Deflat
1130	Tyres worn/insufficient tread	Tread
1131	Defective lights or signals	Signal
1132	Defective brakes	Brakes
1133	Other (Vehicle defects)	Vother
1134	Site details poor road surface	Surf
1135	Site details poor/no street lighting	Lightg
1136	Site details inadequate signing	Sign
1137	Site details steep hill	Hill
1138	Site details narrow road	Narr
1139	Site details bend/winding road	Rbend
1140	Site details roadworks	Works
1141	Slippery road	Slip
1142	High winds	Winds
1143	Earlier accident	Earli
1144	Other (Local conditions)	Lother
1145	View windows obscured	Obs
1146	View glare from sun	Glare
1147	View glare from headlights	Head
1148	Surroundings bend/winding road	Bend
1149	Surroundings stationary parked vehicle	Stat
1150	Surroundings moving vehicle	Move
1151	Surroundings buildings, fences, vegetation etc	Fence
1152	Weather (e.g. mist or sleet)	Weath
1153	Failed to see pedestrian or vehicle in blindspot	Blind
1154	Animal out of control	Animal
9999	GMP Out of Range	OoR

Appendix C – Traffic Survey Data

Manchester
Classified Junction Count

Site 1 of 4
Siemens Access
A5145 Barlow Moor Road (East)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.424274° lon -2.252561°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 1.1: Left from Siemens Access to A5145 Barlow Moor Road (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	2	1	0	0	0	0	3	3.00
0715 - 0730	1	0	0	0	0	0	0	0	1	0.20
0730 - 0745	0	0	2	0	0	0	0	0	2	2.00
0745 - 0800	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	1	0	6	1	0	0	0	0	8	7.20
Hourly Average	0.25	0.00	1.50	0.25	0.00	0.00	0.00	0.00	2.00	1.80
0800 - 0815	0	0	1	0	0	0	0	0	1	1.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	0	0	4	0	0	0	0	0	4	4.00
0845 - 0900	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	0	8	0	0	0	0	0	8	8.00
Hourly Average	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
0900 - 0915	0	0	3	0	1	0	0	0	4	4.00
0915 - 0930	0	0	4	0	0	0	0	0	4	4.00
0930 - 0945	0	0	0	0	1	0	0	0	1	1.00
0945 - 1000	1	0	5	1	0	1	0	0	8	7.70
Hourly Total	1	0	12	1	2	1	0	0	17	16.70
Hourly Average	0.25	0.00	3.00	0.25	0.50	0.25	0.00	0.00	4.25	4.18
Session Total	2	0	26	2	2	1	0	0	33	31.90
Session Average	0.17	0.00	2.17	0.17	0.17	0.08	0.00	0.00	2.75	2.66

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 1.1: Left from Siemens Access to A5145 Barlow Moor Road (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	13	0	0	0	0	0	13	13.00
1615 - 1630	0	0	10	0	0	0	0	0	10	10.00
1630 - 1645	2	0	5	1	1	0	0	0	9	7.40
1645 - 1700	1	0	4	0	0	0	0	0	5	4.20
Hourly Total	3	0	32	1	1	0	0	0	37	34.60
Hourly Average	0.75	0.00	8.00	0.25	0.25	0.00	0.00	0.00	9.25	8.65
1700 - 1715	0	0	5	1	1	0	0	0	7	7.00
1715 - 1730	0	0	3	0	0	0	0	0	3	3.00
1730 - 1745	1	0	2	0	0	0	0	0	3	2.20
1745 - 1800	1	0	5	0	1	0	0	0	7	6.20
Hourly Total	2	0	15	1	2	0	0	0	20	18.40
Hourly Average	0.50	0.00	3.75	0.25	0.50	0.00	0.00	0.00	5.00	4.60
1800 - 1815	0	1	5	0	0	0	0	0	6	5.40
1815 - 1830	0	0	3	0	0	0	0	0	3	3.00
1830 - 1845	0	0	4	0	0	0	0	0	4	4.00
1845 - 1900	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	0	1	17	0	0	0	0	0	18	17.40
Hourly Average	0.00	0.25	4.25	0.00	0.00	0.00	0.00	0.00	4.50	4.35
Session Total	5	1	64	2	3	0	0	0	75	70.40
Session Average	0.42	0.08	5.33	0.17	0.25	0.00	0.00	0.00	6.25	5.87

Manchester
Classified Junction Count

Site 1 of 4
Siemens Access
A5145 Barlow Moor Road (East)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.424274° lon -2.252561°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 1.2: Right from Siemens Access to A5145 Barlow Moor Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	5	0	1	0	0	0	6	6.00
0715 - 0730	0	0	7	0	0	0	0	0	7	7.00
0730 - 0745	0	0	3	3	0	0	0	0	6	6.00
0745 - 0800	0	0	4	0	0	1	0	0	5	5.50
Hourly Total	**0**	**0**	**19**	**3**	**1**	**1**	**0**	**0**	24	24.50
Hourly Average	**0.00**	**0.00**	**4.75**	**0.75**	**0.25**	**0.25**	**0.00**	**0.00**	6.00	6.13
0800 - 0815	0	0	3	0	0	0	0	0	3	3.00
0815 - 0830	0	0	4	2	1	0	0	0	7	7.00
0830 - 0845	0	0	9	1	1	0	1	0	12	13.30
0845 - 0900	0	0	6	0	1	0	0	0	7	7.00
Hourly Total	**0**	**0**	**22**	**3**	**3**	**0**	**1**	**0**	29	30.30
Hourly Average	**0.00**	**0.00**	**5.50**	**0.75**	**0.75**	**0.00**	**0.25**	**0.00**	7.25	7.58
0900 - 0915	0	0	9	1	2	1	0	0	13	13.50
0915 - 0930	0	0	6	0	1	0	0	0	7	7.00
0930 - 0945	0	1	6	1	1	0	0	0	9	8.40
0945 - 1000	0	0	13	0	3	0	0	0	16	16.00
Hourly Total	**0**	**1**	**34**	**2**	**7**	**1**	**0**	**0**	45	44.90
Hourly Average	**0.00**	**0.25**	**8.50**	**0.50**	**1.75**	**0.25**	**0.00**	**0.00**	11.25	11.23

Session Total	**0**	**1**	**75**	**8**	**11**	**2**	**1**	**0**	98	99.70
Session Average	**0.00**	**0.08**	**6.25**	**0.67**	**0.92**	**0.17**	**0.08**	**0.00**	8.17	8.31

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 1.2: Right from Siemens Access to A5145 Barlow Moor Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	1	0	22	1	4	0	0	0	28	27.20
1615 - 1630	0	0	17	3	1	0	0	0	21	21.00
1630 - 1645	0	0	22	1	1	0	0	0	24	24.00
1645 - 1700	0	0	7	0	0	0	0	0	7	7.00
Hourly Total	**1**	**0**	**68**	**5**	**6**	**0**	**0**	**0**	80	79.20
Hourly Average	**0.25**	**0.00**	**17.00**	**1.25**	**1.50**	**0.00**	**0.00**	**0.00**	20.00	19.80
1700 - 1715	0	0	22	1	4	0	0	0	27	27.00
1715 - 1730	0	0	14	1	2	0	0	0	17	17.00
1730 - 1745	0	0	22	1	2	0	0	0	25	25.00
1745 - 1800	0	0	11	0	0	0	0	0	11	11.00
Hourly Total	**0**	**0**	**69**	**3**	**8**	**0**	**0**	**0**	80	80.00
Hourly Average	**0.00**	**0.00**	**17.25**	**0.75**	**2.00**	**0.00**	**0.00**	**0.00**	20.00	20.00
1800 - 1815	0	0	29	0	0	0	0	0	29	29.00
1815 - 1830	0	0	16	1	0	0	0	0	17	17.00
1830 - 1845	0	0	13	0	0	0	0	0	13	13.00
1845 - 1900	0	0	12	0	1	0	0	0	13	13.00
Hourly Total	**0**	**0**	**70**	**1**	**1**	**0**	**0**	**0**	72	72.00
Hourly Average	**0.00**	**0.00**	**17.50**	**0.25**	**0.25**	**0.00**	**0.00**	**0.00**	18.00	18.00

Session Total	**1**	**0**	**207**	**9**	**15**	**0**	**0**	**0**	232	231.20
Session Average	**0.08**	**0.00**	**17.25**	**0.75**	**1.25**	**0.00**	**0.00**	**0.00**	19.33	19.27

Manchester
Classified Junction Count

Site 1 of 4
Siemens Access
A5145 Barlow Moor Road (East)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.424274° lon -2.252561°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 1.3: Northbound from A5145 Barlow Moor Road (East) to A5145 Barlow Moor Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	2	0	106	1	7	2	1	2	121	123.70
0715 - 0730	1	1	129	2	10	3	0	0	146	146.10
0730 - 0745	6	0	159	4	11	0	1	2	183	181.50
0745 - 0800	4	1	160	1	15	1	0	3	185	184.70
Hourly Total	13	2	554	8	43	6	2	7	635	636.00
Hourly Average	3.25	0.50	138.50	2.00	10.75	1.50	0.50	1.75	158.75	159.00
0800 - 0815	2	1	215	2	14	1	0	3	238	239.30
0815 - 0830	3	0	218	2	8	0	0	1	232	230.60
0830 - 0845	3	0	201	4	9	1	0	2	220	220.10
0845 - 0900	1	0	127	9	10	0	1	2	150	152.50
Hourly Total	9	1	761	17	41	2	1	8	840	842.50
Hourly Average	2.25	0.25	190.25	4.25	10.25	0.50	0.25	2.00	210.00	210.63
0900 - 0915	6	1	140	15	15	2	1	6	186	188.90
0915 - 0930	1	1	100	6	17	1	0	5	131	135.10
0930 - 0945	4	0	111	8	19	2	0	1	145	143.80
0945 - 1000	0	1	95	5	15	3	0	4	123	127.90
Hourly Total	11	3	446	34	66	8	1	16	585	595.70
Hourly Average	2.75	0.75	111.50	8.50	16.50	2.00	0.25	4.00	146.25	148.93

Session Total	33	6	1761	59	150	16	4	31	2060	2074.20
Session Average	2.75	0.50	146.75	4.92	12.50	1.33	0.33	2.58	171.67	172.85

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 1.3: Northbound from A5145 Barlow Moor Road (East) to A5145 Barlow Moor Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	6	1	176	9	18	1	0	4	215	214.10
1615 - 1630	2	0	172	7	17	0	0	0	198	196.40
1630 - 1645	4	0	169	11	8	0	0	3	195	194.80
1645 - 1700	4	1	182	3	17	0	0	1	208	205.20
Hourly Total	16	2	699	30	60	1	0	8	816	810.50
Hourly Average	4.00	0.50	174.75	7.50	15.00	0.25	0.00	2.00	204.00	202.63
1700 - 1715	4	1	162	8	15	1	0	6	197	199.70
1715 - 1730	0	0	183	1	12	0	0	1	197	198.00
1730 - 1745	4	0	183	0	6	0	0	1	194	191.80
1745 - 1800	1	0	141	0	7	0	0	3	152	154.20
Hourly Total	9	1	669	9	40	1	0	11	740	743.70
Hourly Average	2.25	0.25	167.25	2.25	10.00	0.25	0.00	2.75	185.00	185.93
1800 - 1815	2	0	127	0	5	1	0	4	139	141.90
1815 - 1830	6	0	139	0	7	2	1	2	157	156.50
1830 - 1845	3	0	151	1	3	0	0	1	159	157.60
1845 - 1900	3	0	163	0	4	0	0	3	173	173.60
Hourly Total	14	0	580	1	19	3	1	10	628	629.60
Hourly Average	3.50	0.00	145.00	0.25	4.75	0.75	0.25	2.50	157.00	157.40

Session Total	39	3	1948	40	119	5	1	29	2184	2183.80
Session Average	3.25	0.25	162.33	3.33	9.92	0.42	0.08	2.42	182.00	181.98

Manchester
Classified Junction Count

Site 1 of 4
Siemens Access
A5145 Barlow Moor Road (East)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.424274° lon -2.252561°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 1.4: Right from A5145 Barlow Moor Road (East) to Siemens Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	9	1	0	0	0	0	10	10.00
0715 - 0730	0	0	8	0	0	0	0	0	8	8.00
0730 - 0745	0	0	4	1	1	0	0	0	6	6.00
0745 - 0800	1	0	6	0	0	0	1	0	8	8.50
Hourly Total	**1**	**0**	**27**	**2**	**1**	**0**	**1**	**0**	32	32.50
Hourly Average	**0.25**	**0.00**	**6.75**	**0.50**	**0.25**	**0.00**	**0.25**	**0.00**	**8.00**	**8.13**
0800 - 0815	1	0	5	0	0	0	0	0	6	5.20
0815 - 0830	2	0	9	0	0	0	0	0	11	9.40
0830 - 0845	0	0	7	0	0	0	0	0	7	7.00
0845 - 0900	0	1	3	0	1	0	0	0	5	4.40
Hourly Total	**3**	**1**	**24**	**0**	**1**	**0**	**0**	**0**	29	26.00
Hourly Average	**0.75**	**0.25**	**6.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**7.25**	**6.50**
0900 - 0915	0	0	6	0	1	0	0	0	7	7.00
0915 - 0930	0	0	7	0	0	0	0	0	7	7.00
0930 - 0945	0	0	9	0	0	0	0	0	9	9.00
0945 - 1000	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	**0**	**0**	**27**	**0**	**1**	**0**	**0**	**0**	28	28.00
Hourly Average	**0.00**	**0.00**	**6.75**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**7.00**	**7.00**

Session Total	**4**	**1**	**78**	**2**	**3**	**0**	**1**	**0**	89	86.50
Session Average	**0.33**	**0.08**	**6.50**	**0.17**	**0.25**	**0.00**	**0.08**	**0.00**	**7.42**	**7.21**

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 1.4: Right from A5145 Barlow Moor Road (East) to Siemens Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	5	1	0	0	0	0	6	6.00
1615 - 1630	0	0	2	1	1	0	0	0	4	4.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
1645 - 1700	0	0	2	0	1	0	0	0	3	3.00
Hourly Total	**0**	**0**	**9**	**2**	**2**	**0**	**0**	**0**	13	13.00
Hourly Average	**0.00**	**0.00**	**2.25**	**0.50**	**0.50**	**0.00**	**0.00**	**0.00**	**3.25**	**3.25**
1700 - 1715	0	0	3	0	1	0	0	0	4	4.00
1715 - 1730	0	0	2	0	0	0	0	0	2	2.00
1730 - 1745	0	0	2	0	0	0	0	0	2	2.00
1745 - 1800	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	**0**	**0**	**10**	**0**	**1**	**0**	**0**	**0**	11	11.00
Hourly Average	**0.00**	**0.00**	**2.50**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**2.75**	**2.75**
1800 - 1815	0	0	3	0	0	0	0	0	3	3.00
1815 - 1830	0	0	0	0	0	0	0	0	0	0.00
1830 - 1845	0	0	3	0	0	0	0	0	3	3.00
1845 - 1900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	6	6.00
Hourly Average	**0.00**	**0.00**	**1.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.50**	**1.50**

Session Total	**0**	**0**	**25**	**2**	**3**	**0**	**0**	**0**	30	30.00
Session Average	**0.00**	**0.00**	**2.08**	**0.17**	**0.25**	**0.00**	**0.00**	**0.00**	**2.50**	**2.50**

Manchester
Classified Junction Count

Site 1 of 4
Siemens Access
A5145 Barlow Moor Road (East)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.424274° lon -2.252561°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 1.5: Left from A5145 Barlow Moor Road (West) to Siemens Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	26	0	1	0	0	0	27	27.00
0715 - 0730	0	0	45	0	0	0	0	0	45	45.00
0730 - 0745	1	0	37	0	0	0	0	0	38	37.20
0745 - 0800	0	0	37	0	1	1	0	0	39	39.50
Hourly Total	**1**	**0**	**145**	**0**	**2**	**1**	**0**	**0**	149	148.70
Hourly Average	**0.25**	**0.00**	**36.25**	**0.00**	**0.50**	**0.25**	**0.00**	**0.00**	37.25	37.18
0800 - 0815	0	0	23	0	1	0	0	0	24	24.00
0815 - 0830	0	0	31	0	0	0	0	0	31	31.00
0830 - 0845	0	0	20	0	1	0	0	0	21	21.00
0845 - 0900	0	0	25	0	0	2	0	0	27	28.00
Hourly Total	**0**	**0**	**99**	**0**	**2**	**2**	**0**	**0**	103	104.00
Hourly Average	**0.00**	**0.00**	**24.75**	**0.00**	**0.50**	**0.50**	**0.00**	**0.00**	25.75	26.00
0900 - 0915	0	0	22	0	1	0	0	0	23	23.00
0915 - 0930	0	0	15	0	2	0	0	0	17	17.00
0930 - 0945	0	0	22	0	0	0	0	0	22	22.00
0945 - 1000	1	0	22	0	1	0	0	0	24	23.20
Hourly Total	**1**	**0**	**81**	**0**	**4**	**0**	**0**	**0**	86	85.20
Hourly Average	**0.25**	**0.00**	**20.25**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	21.50	21.30

Session Total	**2**	**0**	**325**	**0**	**8**	**3**	**0**	**0**	338	337.90
Session Average	**0.17**	**0.00**	**27.08**	**0.00**	**0.67**	**0.25**	**0.00**	**0.00**	28.17	28.16

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 1.5: Left from A5145 Barlow Moor Road (West) to Siemens Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	9	0	1	0	0	0	10	10.00
1615 - 1630	0	0	13	0	1	0	0	0	14	14.00
1630 - 1645	0	0	13	0	0	0	0	0	13	13.00
1645 - 1700	1	0	9	0	0	0	0	0	10	9.20
Hourly Total	**1**	**0**	**44**	**0**	**2**	**0**	**0**	**0**	47	46.20
Hourly Average	**0.25**	**0.00**	**11.00**	**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	11.75	11.55
1700 - 1715	0	0	8	0	0	0	0	0	8	8.00
1715 - 1730	0	0	9	0	1	0	0	0	10	10.00
1730 - 1745	0	0	9	0	0	0	0	0	9	9.00
1745 - 1800	0	0	15	0	1	0	0	0	16	16.00
Hourly Total	**0**	**0**	**41**	**0**	**2**	**0**	**0**	**0**	43	43.00
Hourly Average	**0.00**	**0.00**	**10.25**	**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	10.75	10.75
1800 - 1815	0	0	7	0	0	0	0	0	7	7.00
1815 - 1830	0	0	5	0	1	0	0	0	6	6.00
1830 - 1845	0	0	5	0	1	0	0	0	6	6.00
1845 - 1900	0	0	6	0	0	0	0	0	6	6.00
Hourly Total	**0**	**0**	**23**	**0**	**2**	**0**	**0**	**0**	25	25.00
Hourly Average	**0.00**	**0.00**	**5.75**	**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	6.25	6.25

Session Total	**1**	**0**	**108**	**0**	**6**	**0**	**0**	**0**	115	114.20
Session Average	**0.08**	**0.00**	**9.00**	**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	9.58	9.52

Manchester
Classified Junction Count

Site 1 of 4
Siemens Access
A5145 Barlow Moor Road (East)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.424274° lon -2.252561°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 1.6: Southbound from A5145 Barlow Moor Road (West) to A5145 Barlow Moor Road (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	3	1	54	0	5	1	0	5	69	71.50
0715 - 0730	1	0	57	2	11	3	0	2	76	78.70
0730 - 0745	3	0	76	3	15	2	1	4	104	107.90
0745 - 0800	2	0	109	1	19	0	0	2	133	133.40
Hourly Total	9	1	296	6	50	6	1	13	382	391.50
Hourly Average	2.25	0.25	74.00	1.50	12.50	1.50	0.25	3.25	95.50	97.88
0800 - 0815	3	1	132	5	23	2	0	3	169	170.00
0815 - 0830	9	1	124	2	20	0	2	2	160	156.80
0830 - 0845	5	0	124	5	8	2	0	3	147	147.00
0845 - 0900	4	0	125	7	16	1	1	5	159	162.60
Hourly Total	21	2	505	19	67	5	3	13	635	636.40
Hourly Average	5.25	0.50	126.25	4.75	16.75	1.25	0.75	3.25	158.75	159.10
0900 - 0915	0	0	111	4	13	3	0	3	134	138.50
0915 - 0930	1	1	100	4	17	0	0	0	123	121.60
0930 - 0945	1	0	94	10	11	2	0	4	122	126.20
0945 - 1000	4	0	92	6	11	2	0	2	117	116.80
Hourly Total	6	1	397	24	52	7	0	9	496	503.10
Hourly Average	1.50	0.25	99.25	6.00	13.00	1.75	0.00	2.25	124.00	125.78

Session Total	36	4	1198	49	169	18	4	35	1513	1531.00
Session Average	3.00	0.33	99.83	4.08	14.08	1.50	0.33	2.92	126.08	127.58

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 1.6: Southbound from A5145 Barlow Moor Road (West) to A5145 Barlow Moor Road (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	5	0	137	5	8	0	0	4	159	159.00
1615 - 1630	1	2	141	5	7	0	0	3	159	160.00
1630 - 1645	1	0	111	8	14	0	0	2	136	137.20
1645 - 1700	1	0	126	3	9	2	0	3	144	147.20
Hourly Total	8	2	515	21	38	2	0	12	598	603.40
Hourly Average	2.00	0.50	128.75	5.25	9.50	0.50	0.00	3.00	149.50	150.85
1700 - 1715	2	0	142	3	13	0	0	2	162	162.40
1715 - 1730	3	0	162	2	4	0	0	4	175	176.60
1730 - 1745	3	0	142	5	9	0	0	2	161	160.60
1745 - 1800	2	1	144	4	9	0	1	2	163	164.10
Hourly Total	10	1	590	14	35	0	1	10	661	663.70
Hourly Average	2.50	0.25	147.50	3.50	8.75	0.00	0.25	2.50	165.25	165.93
1800 - 1815	4	1	129	4	4	2	0	3	147	147.20
1815 - 1830	2	0	122	5	8	0	0	1	138	137.40
1830 - 1845	0	1	146	4	5	0	0	2	158	159.40
1845 - 1900	1	0	128	4	4	0	0	3	140	142.20
Hourly Total	7	2	525	17	21	2	0	9	583	586.20
Hourly Average	1.75	0.50	131.25	4.25	5.25	0.50	0.00	2.25	145.75	146.55

Session Total	25	5	1630	52	94	4	1	31	1842	1853.30
Session Average	2.08	0.42	135.83	4.33	7.83	0.33	0.08	2.58	153.50	154.44

Manchester
Classified Junction Count

Site 2 of 4
A5103 Princess Road (North)
A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.1: Left from A5103 Princess Road (North) to A5145 Barlow Moor Road (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	1	15	0	0	0	0	3	19	21.40
0715 - 0730	0	0	19	0	3	2	0	1	25	27.00
0730 - 0745	1	0	20	0	4	1	0	1	27	27.70
0745 - 0800	0	0	34	0	0	0	0	1	35	36.00
Hourly Total	1	1	88	0	7	3	0	6	106	112.10
Hourly Average	0.25	0.25	22.00	0.00	1.75	0.75	0.00	1.50	26.50	28.03
0800 - 0815	0	1	31	0	4	0	0	2	38	39.40
0815 - 0830	1	0	25	1	2	0	0	1	30	30.20
0830 - 0845	0	0	19	1	3	1	0	2	26	28.50
0845 - 0900	0	0	27	1	4	0	0	1	33	34.00
Hourly Total	1	1	102	3	13	1	0	6	127	132.10
Hourly Average	0.25	0.25	25.50	0.75	3.25	0.25	0.00	1.50	31.75	33.03
0900 - 0915	0	0	28	0	2	1	0	3	34	37.50
0915 - 0930	0	0	19	0	6	0	0	0	25	25.00
0930 - 0945	0	0	29	2	2	1	0	4	38	42.50
0945 - 1000	0	0	23	2	2	0	0	1	28	29.00
Hourly Total	0	0	99	4	12	2	0	8	125	134.00
Hourly Average	0.00	0.00	24.75	1.00	3.00	0.50	0.00	2.00	31.25	33.50

Session Total	2	2	289	7	32	6	0	20	358	378.20
Session Average	0.17	0.17	24.08	0.58	2.67	0.50	0.00	1.67	29.83	31.52

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.1: Left from A5103 Princess Road (North) to A5145 Barlow Moor Road (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	31	1	1	0	0	2	35	37.00
1615 - 1630	0	1	33	4	2	0	0	2	42	43.40
1630 - 1645	0	0	23	1	1	0	0	3	28	31.00
1645 - 1700	0	0	26	0	1	1	0	1	29	30.50
Hourly Total	0	1	113	6	5	1	0	8	134	141.90
Hourly Average	0.00	0.25	28.25	1.50	1.25	0.25	0.00	2.00	33.50	35.48
1700 - 1715	0	0	29	0	1	0	0	2	32	34.00
1715 - 1730	0	0	34	0	1	0	0	2	37	39.00
1730 - 1745	0	0	24	1	2	0	0	2	29	31.00
1745 - 1800	1	0	29	0	4	0	0	1	35	35.20
Hourly Total	1	0	116	1	8	0	0	7	133	139.20
Hourly Average	0.25	0.00	29.00	0.25	2.00	0.00	0.00	1.75	33.25	34.80
1800 - 1815	0	1	30	0	2	0	0	2	35	36.40
1815 - 1830	0	0	21	4	4	0	0	2	31	33.00
1830 - 1845	1	0	30	0	1	0	0	1	33	33.20
1845 - 1900	1	0	33	1	3	0	0	1	39	39.20
Hourly Total	2	1	114	5	10	0	0	6	138	141.80
Hourly Average	0.50	0.25	28.50	1.25	2.50	0.00	0.00	1.50	34.50	35.45

Session Total	3	2	343	12	23	1	0	21	405	422.90
Session Average	0.25	0.17	28.58	1.00	1.92	0.08	0.00	1.75	33.75	35.24

Manchester
Classified Junction Count

Site 2 of 4
A5103 Princess Road (North)
A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.2: Westbound from A5103 Princess Road (North) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	1	229	3	37	3	6	3	283	293.90
0715 - 0730	1	1	273	3	35	6	2	3	324	331.20
0730 - 0745	2	0	365	7	43	4	7	2	430	441.50
0745 - 0800	0	0	385	4	44	6	4	3	446	457.20
Hourly Total	4	2	1252	17	159	19	19	11	1483	1523.80
Hourly Average	1.00	0.50	313.00	4.25	39.75	4.75	4.75	2.75	370.75	380.95
0800 - 0815	0	1	396	8	36	7	6	3	457	470.70
0815 - 0830	0	3	375	6	37	6	4	5	436	447.40
0830 - 0845	0	1	402	3	34	4	6	6	456	471.20
0845 - 0900	1	0	384	14	53	10	3	12	477	497.10
Hourly Total	1	5	1557	31	160	27	19	26	1826	1886.40
Hourly Average	0.25	1.25	389.25	7.75	40.00	6.75	4.75	6.50	456.50	471.60
0900 - 0915	1	0	266	9	32	0	7	5	320	333.30
0915 - 0930	1	0	298	15	49	11	7	5	386	404.80
0930 - 0945	0	0	270	15	41	5	4	6	341	354.70
0945 - 1000	0	0	199	9	49	9	7	9	282	304.60
Hourly Total	2	0	1033	48	171	25	25	25	1329	1397.40
Hourly Average	0.50	0.00	258.25	12.00	42.75	6.25	6.25	6.25	332.25	349.35

Session Total	7	7	3842	96	490	71	63	62	4638	4807.60
Session Average	0.58	0.58	320.17	8.00	40.83	5.92	5.25	5.17	386.50	400.63

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.2: Westbound from A5103 Princess Road (North) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	1	1	508	14	38	2	5	6	575	587.10
1615 - 1630	2	2	557	11	42	2	4	9	629	641.40
1630 - 1645	1	3	493	16	31	3	1	3	551	554.20
1645 - 1700	0	2	476	12	44	2	3	5	544	552.70
Hourly Total	4	8	2034	53	155	9	13	23	2299	2335.40
Hourly Average	1.00	2.00	508.50	13.25	38.75	2.25	3.25	5.75	574.75	583.85
1700 - 1715	2	1	481	15	33	1	1	5	539	543.60
1715 - 1730	0	2	495	12	27	2	0	0	538	537.80
1730 - 1745	0	3	469	6	33	2	0	7	520	526.20
1745 - 1800	2	0	427	10	21	1	1	5	467	472.20
Hourly Total	4	6	1872	43	114	6	2	17	2064	2079.80
Hourly Average	1.00	1.50	468.00	10.75	28.50	1.50	0.50	4.25	516.00	519.95
1800 - 1815	1	2	430	7	9	0	1	5	455	459.30
1815 - 1830	0	0	453	8	20	1	2	4	488	495.10
1830 - 1845	0	1	394	8	16	2	1	3	425	429.70
1845 - 1900	0	2	352	11	15	0	1	5	386	391.10
Hourly Total	1	5	1629	34	60	3	5	17	1754	1775.20
Hourly Average	0.25	1.25	407.25	8.50	15.00	0.75	1.25	4.25	438.50	443.80

Session Total	9	19	5535	130	329	18	20	57	6117	6190.40
Session Average	0.75	1.58	461.25	10.83	27.42	1.50	1.67	4.75	509.75	515.87

Manchester
Classified Junction Count

Site 2 of 4
A5103 Princess Road (North)
A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.3: Right from A5103 Princess Road (North) to A5145 Barlow Moor Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	5	0	0	0	0	2	7	9.00
0715 - 0730	0	0	8	0	1	0	0	1	10	11.00
0730 - 0745	0	0	9	1	0	0	0	1	11	12.00
0745 - 0800	0	0	19	1	0	0	0	0	20	20.00
Hourly Total	0	0	41	2	1	0	0	4	48	52.00
Hourly Average	0.00	0.00	10.25	0.50	0.25	0.00	0.00	1.00	12.00	13.00
0800 - 0815	0	0	27	1	3	0	0	0	31	31.00
0815 - 0830	1	0	23	4	1	0	0	0	29	28.20
0830 - 0845	0	0	33	0	4	0	0	0	37	37.00
0845 - 0900	0	0	26	2	1	0	0	1	30	31.00
Hourly Total	1	0	109	7	9	0	0	1	127	127.20
Hourly Average	0.25	0.00	27.25	1.75	2.25	0.00	0.00	0.25	31.75	31.80
0900 - 0915	0	0	13	0	4	1	0	0	18	18.50
0915 - 0930	0	0	17	3	7	0	0	1	28	29.00
0930 - 0945	0	0	13	0	4	0	0	0	17	17.00
0945 - 1000	0	0	9	0	4	0	0	0	13	13.00
Hourly Total	0	0	52	3	19	1	0	1	76	77.50
Hourly Average	0.00	0.00	13.00	0.75	4.75	0.25	0.00	0.25	19.00	19.38

Session Total	1	0	202	12	29	1	0	6	251	256.70
Session Average	0.08	0.00	16.83	1.00	2.42	0.08	0.00	0.50	20.92	21.39

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.3: Right from A5103 Princess Road (North) to A5145 Barlow Moor Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	12	0	1	0	0	1	14	15.00
1615 - 1630	2	0	19	0	1	0	0	1	23	22.40
1630 - 1645	0	0	13	1	2	1	0	0	17	17.50
1645 - 1700	0	0	23	4	0	0	0	0	27	27.00
Hourly Total	2	0	67	5	4	1	0	2	81	81.90
Hourly Average	0.50	0.00	16.75	1.25	1.00	0.25	0.00	0.50	20.25	20.48
1700 - 1715	0	0	19	1	0	0	0	0	20	20.00
1715 - 1730	0	0	15	0	0	0	0	0	15	15.00
1730 - 1745	0	1	21	0	0	0	0	0	22	21.40
1745 - 1800	1	0	15	1	1	0	0	0	18	17.20
Hourly Total	1	1	70	2	1	0	0	0	75	73.60
Hourly Average	0.25	0.25	17.50	0.50	0.25	0.00	0.00	0.00	18.75	18.40
1800 - 1815	0	1	17	0	1	0	0	0	19	18.40
1815 - 1830	0	0	20	0	0	0	0	1	21	22.00
1830 - 1845	0	0	26	0	0	0	0	0	26	26.00
1845 - 1900	0	0	20	1	1	0	0	0	22	22.00
Hourly Total	0	1	83	1	2	0	0	1	88	88.40
Hourly Average	0.00	0.25	20.75	0.25	0.50	0.00	0.00	0.25	22.00	22.10

Session Total	3	2	220	8	7	1	0	3	244	243.90
Session Average	0.25	0.17	18.33	0.67	0.58	0.08	0.00	0.25	20.33	20.33

Manchester
Classified Junction Count

Site 2 of 4
A5103 Princess Road (North)
A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.4: Left from A5145 Barlow Moor Road (East) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	81	0	6	1	1	0	90	91.00
0715 - 0730	0	0	85	0	7	1	0	0	93	93.50
0730 - 0745	0	0	115	2	8	1	0	0	126	126.50
0745 - 0800	0	0	115	1	6	2	0	1	125	127.00
Hourly Total	**1**	**0**	**396**	**3**	**27**	**5**	**1**	**1**	434	438.00
Hourly Average	**0.25**	**0.00**	**99.00**	**0.75**	**6.75**	**1.25**	**0.25**	**0.25**	**108.50**	**109.50**
0800 - 0815	0	0	113	2	6	0	0	0	121	121.00
0815 - 0830	2	1	123	0	4	0	0	0	130	127.80
0830 - 0845	0	1	122	2	5	1	1	0	132	133.20
0845 - 0900	0	0	83	2	6	0	1	0	92	93.30
Hourly Total	**2**	**2**	**441**	**6**	**21**	**1**	**2**	**0**	475	475.30
Hourly Average	**0.50**	**0.50**	**110.25**	**1.50**	**5.25**	**0.25**	**0.50**	**0.00**	**118.75**	**118.83**
0900 - 0915	0	0	96	7	11	1	1	2	118	121.80
0915 - 0930	0	0	62	1	11	0	0	0	74	74.00
0930 - 0945	0	0	66	1	7	1	0	0	75	75.50
0945 - 1000	0	1	61	1	6	1	0	1	71	71.90
Hourly Total	**0**	**1**	**285**	**10**	**35**	**3**	**1**	**3**	338	343.20
Hourly Average	**0.00**	**0.25**	**71.25**	**2.50**	**8.75**	**0.75**	**0.25**	**0.75**	**84.50**	**85.80**

Session Total	**3**	**3**	**1122**	**19**	**83**	**9**	**4**	**4**	1247	1256.50
Session Average	**0.25**	**0.25**	**93.50**	**1.58**	**6.92**	**0.75**	**0.33**	**0.33**	**103.92**	**104.71**

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.4: Left from A5145 Barlow Moor Road (East) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	1	0	117	6	15	1	0	1	141	141.70
1615 - 1630	0	0	123	5	15	0	0	0	143	143.00
1630 - 1645	0	0	121	7	7	0	0	0	135	135.00
1645 - 1700	1	1	109	3	11	0	0	1	126	125.60
Hourly Total	**2**	**1**	**470**	**21**	**48**	**1**	**0**	**2**	545	545.30
Hourly Average	**0.50**	**0.25**	**117.50**	**5.25**	**12.00**	**0.25**	**0.00**	**0.50**	**136.25**	**136.33**
1700 - 1715	0	0	100	4	13	1	0	0	118	118.50
1715 - 1730	0	0	132	2	8	0	0	0	142	142.00
1730 - 1745	0	0	110	0	8	0	0	0	118	118.00
1745 - 1800	0	0	91	0	5	0	0	1	97	98.00
Hourly Total	**0**	**0**	**433**	**6**	**34**	**1**	**0**	**1**	475	476.50
Hourly Average	**0.00**	**0.00**	**108.25**	**1.50**	**8.50**	**0.25**	**0.00**	**0.25**	**118.75**	**119.13**
1800 - 1815	0	0	109	0	2	0	0	1	112	113.00
1815 - 1830	0	0	81	0	4	1	1	0	87	88.80
1830 - 1845	0	0	89	0	2	0	0	0	91	91.00
1845 - 1900	0	0	91	0	5	0	0	0	96	96.00
Hourly Total	**0**	**0**	**370**	**0**	**13**	**1**	**1**	**1**	386	388.80
Hourly Average	**0.00**	**0.00**	**92.50**	**0.00**	**3.25**	**0.25**	**0.25**	**0.25**	**96.50**	**97.20**

Session Total	**2**	**1**	**1273**	**27**	**95**	**3**	**1**	**4**	1406	1410.60
Session Average	**0.17**	**0.08**	**106.08**	**2.25**	**7.92**	**0.25**	**0.08**	**0.33**	**117.17**	**117.55**

Manchester
Classified Junction Count

Site 2 of 4
A5103 Princess Road (North)
A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.5: Northbound from A5145 Barlow Moor Road (East) to A5145 Barlow Moor Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	17	0	0	0	0	1	19	19.20
0715 - 0730	0	0	20	2	5	1	0	0	28	28.50
0730 - 0745	5	0	36	4	1	0	1	1	48	46.30
0745 - 0800	4	0	38	1	6	0	0	1	50	47.80
Hourly Total	**10**	**0**	**111**	**7**	**12**	**1**	**1**	**3**	**145**	**141.80**
Hourly Average	**2.50**	**0.00**	**27.75**	**1.75**	**3.00**	**0.25**	**0.25**	**0.75**	**36.25**	**35.45**
0800 - 0815	2	0	51	0	3	1	0	1	58	57.90
0815 - 0830	2	0	73	1	4	0	0	0	80	78.40
0830 - 0845	3	0	64	3	4	0	0	1	75	73.60
0845 - 0900	2	0	56	2	4	0	0	1	65	64.40
Hourly Total	**9**	**0**	**244**	**6**	**15**	**1**	**0**	**3**	**278**	**274.30**
Hourly Average	**2.25**	**0.00**	**61.00**	**1.50**	**3.75**	**0.25**	**0.00**	**0.75**	**69.50**	**68.58**
0900 - 0915	3	0	35	8	3	1	0	1	51	50.10
0915 - 0930	1	1	28	5	7	2	0	1	45	45.60
0930 - 0945	5	0	34	7	7	0	0	0	53	49.00
0945 - 1000	0	0	25	4	9	0	0	1	39	40.00
Hourly Total	**9**	**1**	**122**	**24**	**26**	**3**	**0**	**3**	**188**	**184.70**
Hourly Average	**2.25**	**0.25**	**30.50**	**6.00**	**6.50**	**0.75**	**0.00**	**0.75**	**47.00**	**46.18**

Session Total	**28**	**1**	**477**	**37**	**53**	**5**	**1**	**9**	**611**	**600.80**
Session Average	**2.33**	**0.08**	**39.75**	**3.08**	**4.42**	**0.42**	**0.08**	**0.75**	**50.92**	**50.07**

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.5: Northbound from A5145 Barlow Moor Road (East) to A5145 Barlow Moor Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	2	0	45	4	8	0	0	1	60	59.40
1615 - 1630	3	0	37	5	3	0	0	0	48	45.60
1630 - 1645	4	0	52	3	2	0	0	2	63	61.80
1645 - 1700	2	0	53	1	4	0	0	0	60	58.40
Hourly Total	**11**	**0**	**187**	**13**	**17**	**0**	**0**	**3**	**231**	**225.20**
Hourly Average	**2.75**	**0.00**	**46.75**	**3.25**	**4.25**	**0.00**	**0.00**	**0.75**	**57.75**	**56.30**
1700 - 1715	4	1	69	1	6	0	0	2	83	81.20
1715 - 1730	0	0	53	0	4	0	0	0	57	57.00
1730 - 1745	5	0	67	0	2	0	0	0	74	70.00
1745 - 1800	2	0	38	0	1	0	0	2	43	43.40
Hourly Total	**11**	**1**	**227**	**1**	**13**	**0**	**0**	**4**	**257**	**251.60**
Hourly Average	**2.75**	**0.25**	**56.75**	**0.25**	**3.25**	**0.00**	**0.00**	**1.00**	**64.25**	**62.90**
1800 - 1815	1	0	38	0	1	0	0	1	41	41.20
1815 - 1830	6	0	50	0	2	2	0	1	61	58.20
1830 - 1845	2	0	52	0	1	0	0	0	55	53.40
1845 - 1900	3	0	54	0	0	0	0	3	60	60.60
Hourly Total	**12**	**0**	**194**	**0**	**4**	**2**	**0**	**5**	**217**	**213.40**
Hourly Average	**3.00**	**0.00**	**48.50**	**0.00**	**1.00**	**0.50**	**0.00**	**1.25**	**54.25**	**53.35**

Session Total	**34**	**1**	**608**	**14**	**34**	**2**	**0**	**12**	**705**	**690.20**
Session Average	**2.83**	**0.08**	**50.67**	**1.17**	**2.83**	**0.17**	**0.00**	**1.00**	**58.75**	**57.52**

Manchester
Classified Junction Count

Site 2 of 4
A5103 Princess Road (North)
A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.6: Right from A5145 Barlow Moor Road (East) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	14	1	0	1	0	0	16	16.50
0715 - 0730	1	1	22	0	3	0	0	0	27	25.60
0730 - 0745	0	0	22	0	0	0	0	0	22	22.00
0745 - 0800	0	1	28	0	4	0	0	0	33	32.40
Hourly Total	**1**	**2**	**86**	**1**	**7**	**1**	**0**	**0**	98	96.50
Hourly Average	**0.25**	**0.50**	**21.50**	**0.25**	**1.75**	**0.25**	**0.00**	**0.00**	24.50	24.13
0800 - 0815	0	0	38	1	6	0	0	0	45	45.00
0815 - 0830	0	0	41	0	1	1	0	0	43	43.50
0830 - 0845	0	0	30	0	2	0	0	0	32	32.00
0845 - 0900	0	0	19	3	2	0	0	0	24	24.00
Hourly Total	**0**	**0**	**128**	**4**	**11**	**1**	**0**	**0**	144	144.50
Hourly Average	**0.00**	**0.00**	**32.00**	**1.00**	**2.75**	**0.25**	**0.00**	**0.00**	36.00	36.13
0900 - 0915	1	1	24	0	4	0	0	2	32	32.60
0915 - 0930	0	0	23	0	1	0	0	2	26	28.00
0930 - 0945	0	0	31	0	4	0	0	0	35	35.00
0945 - 1000	0	1	21	0	6	2	0	0	30	30.40
Hourly Total	**1**	**2**	**99**	**0**	**15**	**2**	**0**	**4**	123	126.00
Hourly Average	**0.25**	**0.50**	**24.75**	**0.00**	**3.75**	**0.50**	**0.00**	**1.00**	30.75	31.50

Session Total	**2**	**4**	**313**	**5**	**33**	**4**	**0**	**4**	365	367.00
Session Average	**0.17**	**0.33**	**26.08**	**0.42**	**2.75**	**0.33**	**0.00**	**0.33**	30.42	30.58

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.6: Right from A5145 Barlow Moor Road (East) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	1	33	0	0	0	0	0	34	33.40
1615 - 1630	0	1	30	0	3	0	0	0	34	33.40
1630 - 1645	0	0	27	0	0	0	0	0	27	27.00
1645 - 1700	0	0	44	1	0	0	0	0	45	45.00
Hourly Total	**0**	**2**	**134**	**1**	**3**	**0**	**0**	**0**	140	138.80
Hourly Average	**0.00**	**0.50**	**33.50**	**0.25**	**0.75**	**0.00**	**0.00**	**0.00**	35.00	34.70
1700 - 1715	0	0	27	0	2	0	0	0	29	29.00
1715 - 1730	0	0	24	0	1	0	0	0	25	25.00
1730 - 1745	0	0	36	0	0	0	0	0	36	36.00
1745 - 1800	0	0	20	0	1	0	0	0	21	21.00
Hourly Total	**0**	**0**	**107**	**0**	**4**	**0**	**0**	**0**	111	111.00
Hourly Average	**0.00**	**0.00**	**26.75**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	27.75	27.75
1800 - 1815	0	0	22	0	3	0	0	0	25	25.00
1815 - 1830	0	0	17	0	1	0	0	0	18	18.00
1830 - 1845	0	0	35	1	1	0	0	0	37	37.00
1845 - 1900	0	0	40	0	1	0	0	0	41	41.00
Hourly Total	**0**	**0**	**114**	**1**	**6**	**0**	**0**	**0**	121	121.00
Hourly Average	**0.00**	**0.00**	**28.50**	**0.25**	**1.50**	**0.00**	**0.00**	**0.00**	30.25	30.25

Session Total	**0**	**2**	**355**	**2**	**13**	**0**	**0**	**0**	372	370.80
Session Average	**0.00**	**0.17**	**29.58**	**0.17**	**1.08**	**0.00**	**0.00**	**0.00**	31.00	30.90

Manchester
Classified Junction Count

Site 2 of 4
A5103 Princess Road (North)
A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.7: Left from A5103 Princess Road (South) to A5145 Barlow Moor Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	39	0	12	0	0	0	51	51.00
0715 - 0730	1	0	75	1	9	1	1	0	88	89.00
0730 - 0745	0	0	96	1	23	0	0	0	120	120.00
0745 - 0800	0	0	97	1	19	0	0	0	117	117.00
Hourly Total	**1**	**0**	**307**	**3**	**63**	**1**	**1**	**0**	376	377.00
Hourly Average	**0.25**	**0.00**	**76.75**	**0.75**	**15.75**	**0.25**	**0.25**	**0.00**	**94.00**	**94.25**
0800 - 0815	0	0	99	0	22	0	0	2	123	125.00
0815 - 0830	1	0	141	1	25	0	1	2	171	173.50
0830 - 0845	0	1	130	4	29	3	0	0	167	167.90
0845 - 0900	0	1	111	2	19	1	0	0	134	133.90
Hourly Total	**1**	**2**	**481**	**7**	**95**	**4**	**1**	**4**	595	600.30
Hourly Average	**0.25**	**0.50**	**120.25**	**1.75**	**23.75**	**1.00**	**0.25**	**1.00**	**148.75**	**150.08**
0900 - 0915	0	0	89	1	23	5	1	1	120	124.80
0915 - 0930	0	0	110	5	17	2	0	2	136	139.00
0930 - 0945	0	0	91	6	21	2	0	0	120	121.00
0945 - 1000	0	0	100	9	20	2	0	0	131	132.00
Hourly Total	**0**	**0**	**390**	**21**	**81**	**11**	**1**	**3**	507	516.80
Hourly Average	**0.00**	**0.00**	**97.50**	**5.25**	**20.25**	**2.75**	**0.25**	**0.75**	**126.75**	**129.20**

Session Total	**2**	**2**	**1178**	**31**	**239**	**16**	**3**	**7**	1478	1494.10
Session Average	**0.17**	**0.17**	**98.17**	**2.58**	**19.92**	**1.33**	**0.25**	**0.58**	**123.17**	**124.51**

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.7: Left from A5103 Princess Road (South) to A5145 Barlow Moor Road (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	125	5	11	0	0	1	142	143.00
1615 - 1630	0	0	100	3	10	0	0	0	113	113.00
1630 - 1645	1	0	105	2	15	1	0	0	124	123.70
1645 - 1700	0	1	126	6	23	0	0	1	157	157.40
Hourly Total	**1**	**1**	**456**	**16**	**59**	**1**	**0**	**2**	536	537.10
Hourly Average	**0.25**	**0.25**	**114.00**	**4.00**	**14.75**	**0.25**	**0.00**	**0.50**	**134.00**	**134.28**
1700 - 1715	0	0	97	2	13	0	0	1	113	114.00
1715 - 1730	0	1	113	2	8	0	0	2	126	127.40
1730 - 1745	0	0	140	2	11	0	0	1	154	155.00
1745 - 1800	0	0	156	1	14	0	0	2	173	175.00
Hourly Total	**0**	**1**	**506**	**7**	**46**	**0**	**0**	**6**	566	571.40
Hourly Average	**0.00**	**0.25**	**126.50**	**1.75**	**11.50**	**0.00**	**0.00**	**1.50**	**141.50**	**142.85**
1800 - 1815	0	0	93	1	8	0	0	0	102	102.00
1815 - 1830	0	0	111	2	10	0	0	0	123	123.00
1830 - 1845	1	1	93	1	9	1	0	1	107	107.10
1845 - 1900	0	0	105	2	6	0	0	0	113	113.00
Hourly Total	**1**	**1**	**402**	**6**	**33**	**1**	**0**	**1**	445	445.10
Hourly Average	**0.25**	**0.25**	**100.50**	**1.50**	**8.25**	**0.25**	**0.00**	**0.25**	**111.25**	**111.28**

Session Total	**2**	**3**	**1364**	**29**	**138**	**2**	**0**	**9**	1547	1553.60
Session Average	**0.17**	**0.25**	**113.67**	**2.42**	**11.50**	**0.17**	**0.00**	**0.75**	**128.92**	**129.47**

Manchester
Classified Junction Count

Site 2 of 4
A5103 Princess Road (North)
A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.8: Eastbound from A5103 Princess Road (South) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	2	298	2	61	4	4	7	379	391.20
0715 - 0730	0	1	434	4	65	6	5	4	519	531.90
0730 - 0745	1	3	435	4	54	7	7	2	513	525.00
0745 - 0800	2	0	437	8	45	5	3	8	508	520.80
Hourly Total	**4**	**6**	**1604**	**18**	**225**	**22**	**19**	**21**	1919	1968.90
Hourly Average	**1.00**	**1.50**	**401.00**	**4.50**	**56.25**	**5.50**	**4.75**	**5.25**	479.75	492.23
0800 - 0815	0	0	471	7	62	5	5	3	553	565.00
0815 - 0830	0	0	432	7	38	3	5	4	489	501.00
0830 - 0845	1	1	373	9	41	5	7	5	442	457.20
0845 - 0900	1	2	345	3	49	5	6	3	414	425.30
Hourly Total	**2**	**3**	**1621**	**26**	**190**	**18**	**23**	**15**	1898	1948.50
Hourly Average	**0.50**	**0.75**	**405.25**	**6.50**	**47.50**	**4.50**	**5.75**	**3.75**	474.50	487.13
0900 - 0915	1	0	379	17	41	3	5	6	452	465.20
0915 - 0930	1	1	392	14	39	5	4	2	458	466.30
0930 - 0945	1	2	340	10	52	4	4	9	422	436.20
0945 - 1000	0	0	268	11	56	8	8	4	355	373.40
Hourly Total	**3**	**3**	**1379**	**52**	**188**	**20**	**21**	**21**	1687	1741.10
Hourly Average	**0.75**	**0.75**	**344.75**	**13.00**	**47.00**	**5.00**	**5.25**	**5.25**	421.75	435.28

Session Total	**9**	**12**	**4604**	**96**	**603**	**60**	**63**	**57**	5504	5658.50
Session Average	**0.75**	**1.00**	**383.67**	**8.00**	**50.25**	**5.00**	**5.25**	**4.75**	458.67	471.54

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.8: Eastbound from A5103 Princess Road (South) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	378	23	36	3	1	7	448	457.80
1615 - 1630	0	1	442	17	35	1	4	6	506	517.10
1630 - 1645	0	1	398	6	31	1	0	4	441	444.90
1645 - 1700	0	1	428	17	35	2	1	4	488	493.70
Hourly Total	**0**	**3**	**1646**	**63**	**137**	**7**	**6**	**21**	1883	1913.50
Hourly Average	**0.00**	**0.75**	**411.50**	**15.75**	**34.25**	**1.75**	**1.50**	**5.25**	470.75	478.38
1700 - 1715	0	1	440	17	38	5	0	2	503	506.90
1715 - 1730	1	2	448	9	35	3	1	2	501	503.80
1730 - 1745	0	0	413	3	25	3	2	5	451	460.10
1745 - 1800	0	0	360	2	27	1	4	3	397	405.70
Hourly Total	**1**	**3**	**1661**	**31**	**125**	**12**	**7**	**12**	1852	1876.50
Hourly Average	**0.25**	**0.75**	**415.25**	**7.75**	**31.25**	**3.00**	**1.75**	**3.00**	463.00	469.13
1800 - 1815	0	2	363	3	20	1	0	3	392	394.30
1815 - 1830	0	0	388	7	25	1	0	5	426	431.50
1830 - 1845	0	0	371	6	21	0	0	2	400	402.00
1845 - 1900	0	0	421	12	22	1	0	2	458	460.50
Hourly Total	**0**	**2**	**1543**	**28**	**88**	**3**	**0**	**12**	1676	1688.30
Hourly Average	**0.00**	**0.50**	**385.75**	**7.00**	**22.00**	**0.75**	**0.00**	**3.00**	419.00	422.08

Session Total	**1**	**8**	**4850**	**122**	**350**	**22**	**13**	**45**	5411	5478.30
Session Average	**0.08**	**0.67**	**404.17**	**10.17**	**29.17**	**1.83**	**1.08**	**3.75**	450.92	456.53

Manchester
Classified Junction Count

Site 2 of 4
A5103 Princess Road (North)
A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.9: Right from A5103 Princess Road (South) to A5145 Barlow Moor Road (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	59	1	6	0	0	2	68	70.00
0715 - 0730	0	0	67	0	6	0	0	1	74	75.00
0730 - 0745	0	0	67	2	9	1	1	1	81	83.80
0745 - 0800	0	0	66	0	15	1	0	0	82	82.50
Hourly Total	**0**	**0**	**259**	**3**	**36**	**2**	**1**	**4**	305	311.30
Hourly Average	**0.00**	**0.00**	**64.75**	**0.75**	**9.00**	**0.50**	**0.25**	**1.00**	76.25	77.83
0800 - 0815	0	0	66	0	14	1	0	0	81	81.50
0815 - 0830	0	0	75	1	9	0	2	0	87	89.60
0830 - 0845	0	0	81	1	4	1	0	1	88	89.50
0845 - 0900	0	0	76	2	10	1	1	2	92	95.80
Hourly Total	**0**	**0**	**298**	**4**	**37**	**3**	**3**	**3**	348	356.40
Hourly Average	**0.00**	**0.00**	**74.50**	**1.00**	**9.25**	**0.75**	**0.75**	**0.75**	87.00	89.10
0900 - 0915	0	0	69	1	10	2	0	0	82	83.00
0915 - 0930	0	0	71	1	8	0	0	0	80	80.00
0930 - 0945	0	0	71	1	6	0	0	1	79	80.00
0945 - 1000	0	0	57	2	7	1	0	0	67	67.50
Hourly Total	**0**	**0**	**268**	**5**	**31**	**3**	**0**	**1**	308	310.50
Hourly Average	**0.00**	**0.00**	**67.00**	**1.25**	**7.75**	**0.75**	**0.00**	**0.25**	77.00	77.63

Session Total	**0**	**0**	**825**	**12**	**104**	**8**	**4**	**8**	961	978.20
Session Average	**0.00**	**0.00**	**68.75**	**1.00**	**8.67**	**0.67**	**0.33**	**0.67**	80.08	81.52

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.9: Right from A5103 Princess Road (South) to A5145 Barlow Moor Road (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	71	1	8	0	0	0	80	80.00
1615 - 1630	0	0	82	0	6	0	0	1	89	90.00
1630 - 1645	0	0	69	4	6	0	0	0	79	79.00
1645 - 1700	0	0	72	1	7	0	0	0	80	80.00
Hourly Total	**0**	**0**	**294**	**6**	**27**	**0**	**0**	**1**	328	329.00
Hourly Average	**0.00**	**0.00**	**73.50**	**1.50**	**6.75**	**0.00**	**0.00**	**0.25**	82.00	82.25
1700 - 1715	0	0	78	2	10	0	0	0	90	90.00
1715 - 1730	0	0	90	1	0	0	0	0	91	91.00
1730 - 1745	0	0	77	3	4	0	0	0	84	84.00
1745 - 1800	0	0	87	1	6	0	1	0	95	96.30
Hourly Total	**0**	**0**	**332**	**7**	**20**	**0**	**1**	**0**	360	361.30
Hourly Average	**0.00**	**0.00**	**83.00**	**1.75**	**5.00**	**0.00**	**0.25**	**0.00**	90.00	90.33
1800 - 1815	0	0	71	0	3	2	0	0	76	77.00
1815 - 1830	0	1	82	1	4	0	0	0	88	87.40
1830 - 1845	0	1	84	1	3	0	0	0	89	88.40
1845 - 1900	0	0	64	1	2	1	0	0	68	68.50
Hourly Total	**0**	**2**	**301**	**3**	**12**	**3**	**0**	**0**	321	321.30
Hourly Average	**0.00**	**0.50**	**75.25**	**0.75**	**3.00**	**0.75**	**0.00**	**0.00**	80.25	80.33

Session Total	**0**	**2**	**927**	**16**	**59**	**3**	**1**	**1**	1009	1011.60
Session Average	**0.00**	**0.17**	**77.25**	**1.33**	**4.92**	**0.25**	**0.08**	**0.08**	84.08	84.30

Manchester
Classified Junction Count

Site 2 of 4
A5103 Princess Road (North)
A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.10: Left from A5145 Barlow Moor Road (West) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	6	0	1	0	1	0	8	9.30
0715 - 0730	1	0	6	0	1	0	0	0	8	7.20
0730 - 0745	1	0	14	0	0	0	0	0	15	14.20
0745 - 0800	1	0	15	0	0	0	0	0	16	15.20
Hourly Total	3	0	41	0	2	0	1	0	47	45.90
Hourly Average	0.75	0.00	10.25	0.00	0.50	0.00	0.25	0.00	11.75	11.48
0800 - 0815	1	0	29	0	4	0	0	0	34	33.20
0815 - 0830	0	0	17	1	0	0	0	0	18	18.00
0830 - 0845	1	0	17	3	4	0	0	0	25	24.20
0845 - 0900	1	0	14	0	3	0	0	0	18	17.20
Hourly Total	3	0	77	4	11	0	0	0	95	92.60
Hourly Average	0.75	0.00	19.25	1.00	2.75	0.00	0.00	0.00	23.75	23.15
0900 - 0915	0	0	14	0	4	1	0	0	19	19.50
0915 - 0930	0	0	8	1	2	0	0	0	11	11.00
0930 - 0945	0	0	12	3	5	0	0	0	20	20.00
0945 - 1000	0	0	11	0	3	1	0	0	15	15.50
Hourly Total	0	0	45	4	14	2	0	0	65	66.00
Hourly Average	0.00	0.00	11.25	1.00	3.50	0.50	0.00	0.00	16.25	16.50

Session Total	6	0	163	8	27	2	1	0	207	204.50
Session Average	0.50	0.00	13.58	0.67	2.25	0.17	0.08	0.00	17.25	17.04

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.10: Left from A5145 Barlow Moor Road (West) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	10	2	1	0	0	0	13	13.00
1615 - 1630	1	0	18	0	2	0	0	0	21	20.20
1630 - 1645	1	0	31	1	3	0	0	1	37	37.20
1645 - 1700	0	0	24	2	1	0	0	0	27	27.00
Hourly Total	2	0	83	5	7	0	0	1	98	97.40
Hourly Average	0.50	0.00	20.75	1.25	1.75	0.00	0.00	0.25	24.50	24.35
1700 - 1715	0	0	16	2	0	0	0	0	18	18.00
1715 - 1730	0	0	6	2	0	0	0	0	8	8.00
1730 - 1745	0	0	17	1	0	0	0	0	18	18.00
1745 - 1800	1	0	14	2	1	0	0	0	18	17.20
Hourly Total	1	0	53	7	1	0	0	0	62	61.20
Hourly Average	0.25	0.00	13.25	1.75	0.25	0.00	0.00	0.00	15.50	15.30
1800 - 1815	0	0	16	0	1	0	0	0	17	17.00
1815 - 1830	0	0	9	0	0	0	0	0	9	9.00
1830 - 1845	0	0	13	0	2	0	0	0	15	15.00
1845 - 1900	0	0	13	0	3	0	0	0	16	16.00
Hourly Total	0	0	51	0	6	0	0	0	57	57.00
Hourly Average	0.00	0.00	12.75	0.00	1.50	0.00	0.00	0.00	14.25	14.25

Session Total	3	0	187	12	14	0	0	1	217	215.60
Session Average	0.25	0.00	15.58	1.00	1.17	0.00	0.00	0.08	18.08	17.97

Manchester
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Site 2 of 4
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A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.11: Southbound from A5145 Barlow Moor Road (West) to A5145 Barlow Moor Road (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	3	0	15	0	1	1	0	1	21	20.10
0715 - 0730	1	0	22	1	2	1	0	1	28	28.70
0730 - 0745	3	0	35	1	2	0	0	2	43	42.60
0745 - 0800	2	0	50	1	7	1	0	0	61	59.90
Hourly Total	9	0	122	3	12	3	0	4	153	151.30
Hourly Average	2.25	0.00	30.50	0.75	3.00	0.75	0.00	1.00	38.25	37.83
0800 - 0815	2	0	61	5	6	0	0	1	75	74.40
0815 - 0830	9	1	62	0	6	0	0	1	79	72.20
0830 - 0845	6	0	51	3	2	1	0	0	63	58.70
0845 - 0900	3	0	50	6	7	1	0	3	70	71.10
Hourly Total	20	1	224	14	21	2	0	5	287	276.40
Hourly Average	5.00	0.25	56.00	3.50	5.25	0.50	0.00	1.25	71.75	69.10
0900 - 0915	1	0	48	1	2	0	0	1	53	53.20
0915 - 0930	0	1	31	3	6	0	0	1	42	42.40
0930 - 0945	0	0	30	7	3	1	0	1	42	43.50
0945 - 1000	4	0	30	2	5	1	0	1	43	41.30
Hourly Total	5	1	139	13	16	2	0	4	180	180.40
Hourly Average	1.25	0.25	34.75	3.25	4.00	0.50	0.00	1.00	45.00	45.10

Session Total	34	2	485	30	49	7	0	13	620	608.10
Session Average	2.83	0.17	40.42	2.50	4.08	0.58	0.00	1.08	51.67	50.68

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.11: Southbound from A5145 Barlow Moor Road (West) to A5145 Barlow Moor Road (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	4	0	52	3	2	0	0	2	63	61.80
1615 - 1630	1	0	44	1	3	0	0	1	50	50.20
1630 - 1645	2	0	46	4	4	0	0	0	56	54.40
1645 - 1700	0	0	52	2	3	1	0	2	60	62.50
Hourly Total	7	0	194	10	12	1	0	5	229	228.90
Hourly Average	1.75	0.00	48.50	2.50	3.00	0.25	0.00	1.25	57.25	57.23
1700 - 1715	1	1	45	2	3	0	0	1	53	52.60
1715 - 1730	2	0	57	0	4	0	0	1	64	63.40
1730 - 1745	3	0	62	2	3	0	0	0	70	67.60
1745 - 1800	3	1	45	2	2	0	0	1	54	52.00
Hourly Total	9	2	209	6	12	0	0	3	241	235.60
Hourly Average	2.25	0.50	52.25	1.50	3.00	0.00	0.00	0.75	60.25	58.90
1800 - 1815	4	0	43	4	0	0	0	1	52	49.80
1815 - 1830	1	0	34	1	1	0	0	0	37	36.20
1830 - 1845	0	0	44	2	2	0	0	0	48	48.00
1845 - 1900	4	0	47	2	1	0	0	2	56	54.80
Hourly Total	9	0	168	9	4	0	0	3	193	188.80
Hourly Average	2.25	0.00	42.00	2.25	1.00	0.00	0.00	0.75	48.25	47.20

Session Total	25	2	571	25	28	1	0	11	663	653.30
Session Average	2.08	0.17	47.58	2.08	2.33	0.08	0.00	0.92	55.25	54.44

Manchester
Classified Junction Count

Site 2 of 4
A5103 Princess Road (North)
A5145 Barlow Moor Road (East)
A5103 Princess Road (South)
A5145 Barlow Moor Road (West)

Lat/Long
lat 53.425136° lon -2.255496°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 2.12: Right from A5145 Barlow Moor Road (West) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	54	0	14	0	0	0	68	68.00
0715 - 0730	0	1	90	3	13	1	0	0	108	107.90
0730 - 0745	0	1	92	2	8	2	0	0	105	105.40
0745 - 0800	0	1	122	1	21	0	0	0	145	144.40
Hourly Total	0	3	358	6	56	3	0	0	426	425.70
Hourly Average	0.00	0.75	89.50	1.50	14.00	0.75	0.00	0.00	106.50	106.43
0800 - 0815	0	0	129	5	12	0	1	1	148	150.30
0815 - 0830	0	0	146	2	6	0	0	0	154	154.00
0830 - 0845	0	0	117	2	16	0	2	2	139	143.60
0845 - 0900	0	0	116	6	17	2	0	6	147	154.00
Hourly Total	0	0	508	15	51	2	3	9	588	601.90
Hourly Average	0.00	0.00	127.00	3.75	12.75	0.50	0.75	2.25	147.00	150.48
0900 - 0915	0	0	89	2	12	0	0	4	107	111.00
0915 - 0930	0	0	67	6	14	3	0	2	92	95.50
0930 - 0945	0	0	68	3	14	1	0	0	86	86.50
0945 - 1000	0	0	73	5	22	2	0	1	103	105.00
Hourly Total	0	0	297	16	62	6	0	7	388	398.00
Hourly Average	0.00	0.00	74.25	4.00	15.50	1.50	0.00	1.75	97.00	99.50

Session Total	0	3	1163	37	169	11	3	16	1402	1425.60
Session Average	0.00	0.25	96.92	3.08	14.08	0.92	0.25	1.33	116.83	118.80

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 2.12: Right from A5145 Barlow Moor Road (West) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	166	3	19	1	0	0	189	189.50
1615 - 1630	1	0	151	4	25	0	0	3	184	186.20
1630 - 1645	0	0	121	8	23	2	0	0	154	155.00
1645 - 1700	1	1	114	9	10	0	0	1	136	135.60
Hourly Total	2	1	552	24	77	3	0	4	663	666.30
Hourly Average	0.50	0.25	138.00	6.00	19.25	0.75	0.00	1.00	165.75	166.58
1700 - 1715	0	0	101	2	18	0	0	4	125	129.00
1715 - 1730	0	0	107	2	12	0	0	1	122	123.00
1730 - 1745	0	0	131	0	13	0	0	1	145	146.00
1745 - 1800	0	0	89	1	10	0	0	2	102	104.00
Hourly Total	0	0	428	5	53	0	0	8	494	502.00
Hourly Average	0.00	0.00	107.00	1.25	13.25	0.00	0.00	2.00	123.50	125.50
1800 - 1815	0	0	97	2	9	0	0	2	110	112.00
1815 - 1830	0	0	96	1	4	0	0	1	102	103.00
1830 - 1845	0	0	86	1	1	0	0	1	89	90.00
1845 - 1900	0	0	83	1	5	0	0	2	91	93.00
Hourly Total	0	0	362	5	19	0	0	6	392	398.00
Hourly Average	0.00	0.00	90.50	1.25	4.75	0.00	0.00	1.50	98.00	99.50

Session Total	2	1	1342	34	149	3	0	18	1549	1566.30
Session Average	0.17	0.08	111.83	2.83	12.42	0.25	0.00	1.50	129.08	130.53

Manchester
Classified Junction Count

Site 3 of 4
A5103 Princess Road (North)
Nell Lane (East)
A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.1: Left from A5103 Princess Road (North) to Nell Lane (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	7	0	0	0	0	0	7	7.00
0715 - 0730	1	0	6	0	1	0	0	0	8	7.20
0730 - 0745	0	0	7	0	0	0	0	0	7	7.00
0745 - 0800	1	0	12	0	2	0	0	0	15	14.20
Hourly Total	**2**	**0**	**32**	**0**	**3**	**0**	**0**	**0**	37	35.40
Hourly Average	**0.50**	**0.00**	**8.00**	**0.00**	**0.75**	**0.00**	**0.00**	**0.00**	**9.25**	**8.85**
0800 - 0815	1	0	15	1	1	0	0	0	18	17.20
0815 - 0830	0	0	14	0	1	1	0	0	16	16.50
0830 - 0845	0	0	20	0	4	0	0	0	24	24.00
0845 - 0900	2	0	18	1	1	0	0	1	23	22.40
Hourly Total	**3**	**0**	**67**	**2**	**7**	**1**	**0**	**1**	81	80.10
Hourly Average	**0.75**	**0.00**	**16.75**	**0.50**	**1.75**	**0.25**	**0.00**	**0.25**	**20.25**	**20.03**
0900 - 0915	0	0	14	1	2	0	0	1	18	19.00
0915 - 0930	0	0	6	0	0	0	0	0	6	6.00
0930 - 0945	0	0	6	0	2	0	0	0	8	8.00
0945 - 1000	0	0	5	0	1	0	0	0	6	6.00
Hourly Total	**0**	**0**	**31**	**1**	**5**	**0**	**0**	**1**	38	39.00
Hourly Average	**0.00**	**0.00**	**7.75**	**0.25**	**1.25**	**0.00**	**0.00**	**0.25**	**9.50**	**9.75**

Session Total	**5**	**0**	**130**	**3**	**15**	**1**	**0**	**2**	156	154.50
Session Average	**0.42**	**0.00**	**10.83**	**0.25**	**1.25**	**0.08**	**0.00**	**0.17**	**13.00**	**12.88**

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 3.1: Left from A5103 Princess Road (North) to Nell Lane (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	6	0	1	0	0	0	7	7.00
1615 - 1630	0	0	13	1	0	0	0	0	14	14.00
1630 - 1645	0	0	9	1	1	0	0	0	11	11.00
1645 - 1700	0	0	8	0	0	0	0	0	8	8.00
Hourly Total	**0**	**0**	**36**	**2**	**2**	**0**	**0**	**0**	40	40.00
Hourly Average	**0.00**	**0.00**	**9.00**	**0.50**	**0.50**	**0.00**	**0.00**	**0.00**	**10.00**	**10.00**
1700 - 1715	0	0	15	2	1	1	0	0	19	19.50
1715 - 1730	0	0	4	0	0	0	0	0	4	4.00
1730 - 1745	0	0	11	0	0	0	0	0	11	11.00
1745 - 1800	1	0	10	0	0	0	0	0	11	10.20
Hourly Total	**1**	**0**	**40**	**2**	**1**	**1**	**0**	**0**	45	44.70
Hourly Average	**0.25**	**0.00**	**10.00**	**0.50**	**0.25**	**0.25**	**0.00**	**0.00**	**11.25**	**11.18**
1800 - 1815	0	0	17	0	0	0	0	0	17	17.00
1815 - 1830	2	2	14	0	0	0	0	0	18	15.20
1830 - 1845	0	0	14	0	0	0	0	0	14	14.00
1845 - 1900	0	0	18	0	0	0	0	0	18	18.00
Hourly Total	**2**	**2**	**63**	**0**	**0**	**0**	**0**	**0**	67	64.20
Hourly Average	**0.50**	**0.50**	**15.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**16.75**	**16.05**

Session Total	**3**	**2**	**139**	**4**	**3**	**1**	**0**	**0**	152	148.90
Session Average	**0.25**	**0.17**	**11.58**	**0.33**	**0.25**	**0.08**	**0.00**	**0.00**	**12.67**	**12.41**

Manchester
Classified Junction Count

Site 3 of 4
A5103 Princess Road (North)
Nell Lane (East)
A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.2: Westbound from A5103 Princess Road (North) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	2	209	2	31	2	6	5	257	269.60
0715 - 0730	0	1	254	2	34	5	2	4	302	310.50
0730 - 0745	1	0	347	6	41	5	7	4	411	425.80
0745 - 0800	0	0	360	6	37	5	4	0	412	419.70
Hourly Total	1	3	1170	16	143	17	19	13	1382	1425.60
Hourly Average	0.25	0.75	292.50	4.00	35.75	4.25	4.75	3.25	345.50	356.40
0800 - 0815	0	2	361	6	36	7	6	3	421	434.10
0815 - 0830	2	2	345	9	36	5	4	5	408	417.90
0830 - 0845	0	1	366	6	43	7	6	7	436	453.70
0845 - 0900	2	0	358	12	41	8	3	11	435	452.30
Hourly Total	4	5	1430	33	156	27	19	26	1700	1758.00
Hourly Average	1.00	1.25	357.50	8.25	39.00	6.75	4.75	6.50	425.00	439.50
0900 - 0915	0	0	271	8	43	1	7	8	338	355.60
0915 - 0930	0	0	261	20	50	10	7	3	351	368.10
0930 - 0945	1	0	253	14	42	6	4	6	326	339.40
0945 - 1000	0	0	199	10	51	8	8	9	285	308.40
Hourly Total	1	0	984	52	186	25	26	26	1300	1371.50
Hourly Average	0.25	0.00	246.00	13.00	46.50	6.25	6.50	6.50	325.00	342.88

Session Total	6	8	3584	101	485	69	64	65	4382	4555.10
Session Average	0.50	0.67	298.67	8.42	40.42	5.75	5.33	5.42	365.17	379.59

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 3.2: Westbound from A5103 Princess Road (North) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	472	14	36	1	5	9	537	553.00
1615 - 1630	4	4	492	11	33	1	4	8	557	565.10
1630 - 1645	0	2	462	16	30	4	1	2	517	521.10
1645 - 1700	1	1	458	15	38	2	3	7	525	535.50
Hourly Total	5	7	1884	56	137	8	13	26	2136	2174.70
Hourly Average	1.25	1.75	471.00	14.00	34.25	2.00	3.25	6.50	534.00	543.68
1700 - 1715	2	1	466	13	33	1	1	3	520	522.60
1715 - 1730	0	2	451	10	24	2	0	1	490	490.80
1730 - 1745	0	4	478	6	30	2	0	8	528	534.60
1745 - 1800	4	0	382	7	21	1	1	5	421	424.60
Hourly Total	6	7	1777	36	108	6	2	17	1959	1972.60
Hourly Average	1.50	1.75	444.25	9.00	27.00	1.50	0.50	4.25	489.75	493.15
1800 - 1815	0	3	450	10	17	0	1	4	485	488.50
1815 - 1830	1	0	392	9	18	1	2	5	428	435.30
1830 - 1845	0	1	386	7	16	2	1	1	414	416.70
1845 - 1900	1	2	355	9	15	0	1	7	390	396.30
Hourly Total	2	6	1583	35	66	3	5	17	1717	1736.80
Hourly Average	0.50	1.50	395.75	8.75	16.50	0.75	1.25	4.25	429.25	434.20

Session Total	13	20	5244	127	311	17	20	60	5812	5884.10
Session Average	1.08	1.67	437.00	10.58	25.92	1.42	1.67	5.00	484.33	490.34

Manchester
Classified Junction Count

Site 3 of 4
A5103 Princess Road (North)
Nell Lane (East)
A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.3: Right from A5103 Princess Road (North) to Nell Lane (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	1	0	0	0	0	0	2	1.20
0715 - 0730	0	0	2	0	1	0	0	0	3	3.00
0730 - 0745	0	0	8	0	1	0	0	1	10	11.00
0745 - 0800	1	0	12	0	0	1	0	0	14	13.70
Hourly Total	**2**	**0**	**23**	**0**	**2**	**1**	**0**	**1**	29	28.90
Hourly Average	**0.50**	**0.00**	**5.75**	**0.00**	**0.50**	**0.25**	**0.00**	**0.25**	**7.25**	**7.23**
0800 - 0815	0	0	20	1	2	0	0	0	23	23.00
0815 - 0830	0	0	21	0	0	1	0	0	22	22.50
0830 - 0845	0	0	15	1	1	0	0	0	17	17.00
0845 - 0900	0	0	19	0	0	0	0	0	19	19.00
Hourly Total	**0**	**0**	**75**	**2**	**3**	**1**	**0**	**0**	81	81.50
Hourly Average	**0.00**	**0.00**	**18.75**	**0.50**	**0.75**	**0.25**	**0.00**	**0.00**	**20.25**	**20.38**
0900 - 0915	0	0	8	0	1	0	0	0	9	9.00
0915 - 0930	0	0	10	0	1	0	0	0	11	11.00
0930 - 0945	0	0	5	0	0	0	0	0	5	5.00
0945 - 1000	0	0	9	0	3	0	0	0	12	12.00
Hourly Total	**0**	**0**	**32**	**0**	**5**	**0**	**0**	**0**	37	37.00
Hourly Average	**0.00**	**0.00**	**8.00**	**0.00**	**1.25**	**0.00**	**0.00**	**0.00**	**9.25**	**9.25**

Session Total	**2**	**0**	**130**	**2**	**10**	**2**	**0**	**1**	147	147.40
Session Average	**0.17**	**0.00**	**10.83**	**0.17**	**0.83**	**0.17**	**0.00**	**0.08**	**12.25**	**12.28**

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 3.3: Right from A5103 Princess Road (North) to Nell Lane (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	17	0	0	0	0	0	17	17.00
1615 - 1630	1	0	13	0	2	0	0	0	16	15.20
1630 - 1645	0	0	12	1	1	0	0	0	14	14.00
1645 - 1700	0	0	11	0	1	0	0	0	12	12.00
Hourly Total	**1**	**0**	**53**	**1**	**4**	**0**	**0**	**0**	59	58.20
Hourly Average	**0.25**	**0.00**	**13.25**	**0.25**	**1.00**	**0.00**	**0.00**	**0.00**	**14.75**	**14.55**
1700 - 1715	1	0	18	0	1	0	0	0	20	19.20
1715 - 1730	0	0	10	0	3	0	0	0	13	13.00
1730 - 1745	0	0	13	0	0	0	0	0	13	13.00
1745 - 1800	0	0	14	0	0	0	0	0	14	14.00
Hourly Total	**1**	**0**	**55**	**0**	**4**	**0**	**0**	**0**	60	59.20
Hourly Average	**0.25**	**0.00**	**13.75**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**15.00**	**14.80**
1800 - 1815	0	0	20	0	0	0	0	0	20	20.00
1815 - 1830	0	0	11	0	2	0	0	0	13	13.00
1830 - 1845	0	0	10	0	0	0	0	0	10	10.00
1845 - 1900	0	0	13	0	0	0	0	0	13	13.00
Hourly Total	**0**	**0**	**54**	**0**	**2**	**0**	**0**	**0**	56	56.00
Hourly Average	**0.00**	**0.00**	**13.50**	**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	**14.00**	**14.00**

Session Total	**2**	**0**	**162**	**1**	**10**	**0**	**0**	**0**	175	173.40
Session Average	**0.17**	**0.00**	**13.50**	**0.08**	**0.83**	**0.00**	**0.00**	**0.00**	**14.58**	**14.45**

Manchester
Classified Junction Count

Site 3 of 4
A5103 Princess Road (North)
Nell Lane (East)
A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.4: Left from Nell Lane (East) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	10	0	1	0	0	0	11	11.00
0715 - 0730	0	0	22	0	1	1	0	0	24	24.50
0730 - 0745	0	0	25	0	2	0	0	0	27	27.00
0745 - 0800	0	0	29	2	2	1	0	0	34	34.50
Hourly Total	**0**	**0**	**86**	**2**	**6**	**2**	**0**	**0**	96	**97.00**
Hourly Average	**0.00**	**0.00**	**21.50**	**0.50**	**1.50**	**0.50**	**0.00**	**0.00**	**24.00**	**24.25**
0800 - 0815	0	0	31	0	4	0	0	0	35	35.00
0815 - 0830	0	0	33	0	1	0	0	0	34	34.00
0830 - 0845	0	0	35	1	1	0	0	1	38	39.00
0845 - 0900	0	0	22	0	4	0	0	0	26	26.00
Hourly Total	**0**	**0**	**121**	**1**	**10**	**0**	**0**	**1**	133	**134.00**
Hourly Average	**0.00**	**0.00**	**30.25**	**0.25**	**2.50**	**0.00**	**0.00**	**0.25**	**33.25**	**33.50**
0900 - 0915	0	0	17	0	1	1	0	0	19	19.50
0915 - 0930	1	0	17	0	1	1	0	0	20	19.70
0930 - 0945	0	0	19	0	2	1	0	0	22	22.50
0945 - 1000	0	0	13	0	1	0	0	0	14	14.00
Hourly Total	**1**	**0**	**66**	**0**	**5**	**3**	**0**	**0**	75	**75.70**
Hourly Average	**0.25**	**0.00**	**16.50**	**0.00**	**1.25**	**0.75**	**0.00**	**0.00**	**18.75**	**18.93**

Session Total	**1**	**0**	**273**	**3**	**21**	**5**	**0**	**1**	304	306.70
Session Average	**0.08**	**0.00**	**22.75**	**0.25**	**1.75**	**0.42**	**0.00**	**0.08**	**25.33**	**25.56**

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 3.4: Left from Nell Lane (East) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	1	31	0	2	0	0	0	34	33.40
1615 - 1630	0	0	30	1	0	0	0	0	31	31.00
1630 - 1645	0	0	29	0	4	0	0	1	34	35.00
1645 - 1700	0	0	28	3	3	0	0	0	34	34.00
Hourly Total	**0**	**1**	**118**	**4**	**9**	**0**	**0**	**1**	133	**133.40**
Hourly Average	**0.00**	**0.25**	**29.50**	**1.00**	**2.25**	**0.00**	**0.00**	**0.25**	**33.25**	**33.35**
1700 - 1715	0	0	24	0	1	0	0	0	25	25.00
1715 - 1730	0	0	31	0	0	0	0	0	31	31.00
1730 - 1745	0	0	20	0	1	0	0	0	21	21.00
1745 - 1800	0	0	27	0	2	0	0	0	29	29.00
Hourly Total	**0**	**0**	**102**	**0**	**4**	**0**	**0**	**0**	106	**106.00**
Hourly Average	**0.00**	**0.00**	**25.50**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**26.50**	**26.50**
1800 - 1815	0	0	27	0	0	0	0	0	27	27.00
1815 - 1830	0	0	17	0	0	0	0	0	17	17.00
1830 - 1845	0	0	17	0	0	0	0	0	17	17.00
1845 - 1900	0	0	14	0	1	0	0	0	15	15.00
Hourly Total	**0**	**0**	**75**	**0**	**1**	**0**	**0**	**0**	76	**76.00**
Hourly Average	**0.00**	**0.00**	**18.75**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**19.00**	**19.00**

Session Total	**0**	**1**	**295**	**4**	**14**	**0**	**0**	**1**	315	315.40
Session Average	**0.00**	**0.08**	**24.58**	**0.33**	**1.17**	**0.00**	**0.00**	**0.08**	**26.25**	**26.28**

Manchester
Classified Junction Count

Site 3 of 4
A5103 Princess Road (North)
Nell Lane (East)
A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.5: Northbound from Nell Lane (East) to Nell Lane (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	5	0	0	0	0	0	6	5.20
0715 - 0730	1	0	9	1	3	0	0	0	14	13.20
0730 - 0745	1	0	20	2	1	0	0	0	24	23.20
0745 - 0800	0	0	18	0	3	0	0	0	21	21.00
Hourly Total	3	0	52	3	7	0	0	0	65	62.60
Hourly Average	0.75	0.00	13.00	0.75	1.75	0.00	0.00	0.00	16.25	15.65
0800 - 0815	3	0	32	2	2	0	0	0	39	36.60
0815 - 0830	1	0	28	0	0	0	0	0	29	28.20
0830 - 0845	0	0	22	0	2	0	0	0	24	24.00
0845 - 0900	1	1	26	1	2	0	0	0	31	29.60
Hourly Total	5	1	108	3	6	0	0	0	123	118.40
Hourly Average	1.25	0.25	27.00	0.75	1.50	0.00	0.00	0.00	30.75	29.60
0900 - 0915	3	0	25	1	1	0	1	3	34	35.90
0915 - 0930	2	0	21	0	0	0	0	0	23	21.40
0930 - 0945	0	0	17	2	0	0	0	0	19	19.00
0945 - 1000	0	0	13	1	2	0	0	0	16	16.00
Hourly Total	5	0	76	4	3	0	1	3	92	92.30
Hourly Average	1.25	0.00	19.00	1.00	0.75	0.00	0.25	0.75	23.00	23.08

Session Total	13	1	236	10	16	0	1	3	280	273.30
Session Average	1.08	0.08	19.67	0.83	1.33	0.00	0.08	0.25	23.33	22.78

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 3.5: Northbound from Nell Lane (East) to Nell Lane (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	2	0	23	1	3	0	0	0	29	27.40
1615 - 1630	3	0	22	1	0	0	0	0	26	23.60
1630 - 1645	3	0	25	1	0	0	0	0	29	26.60
1645 - 1700	4	0	24	0	2	0	0	0	30	26.80
Hourly Total	12	0	94	3	5	0	0	0	114	104.40
Hourly Average	3.00	0.00	23.50	0.75	1.25	0.00	0.00	0.00	28.50	26.10
1700 - 1715	2	0	29	0	1	0	0	0	32	30.40
1715 - 1730	4	0	28	0	2	0	0	0	34	30.80
1730 - 1745	1	0	17	0	0	0	0	0	18	17.20
1745 - 1800	2	0	26	0	2	0	0	0	30	28.40
Hourly Total	9	0	100	0	5	0	0	0	114	106.80
Hourly Average	2.25	0.00	25.00	0.00	1.25	0.00	0.00	0.00	28.50	26.70
1800 - 1815	0	0	25	0	1	0	0	0	26	26.00
1815 - 1830	1	0	19	0	1	0	0	0	21	20.20
1830 - 1845	0	0	18	0	0	0	0	0	18	18.00
1845 - 1900	1	0	18	0	0	0	0	0	19	18.20
Hourly Total	2	0	80	0	2	0	0	0	84	82.40
Hourly Average	0.50	0.00	20.00	0.00	0.50	0.00	0.00	0.00	21.00	20.60

Session Total	23	0	274	3	12	0	0	0	312	293.60
Session Average	1.92	0.00	22.83	0.25	1.00	0.00	0.00	0.00	26.00	24.47

Manchester
Classified Junction Count

Site 3 of 4
A5103 Princess Road (North)
Nell Lane (East)
A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.6: Right from Nell Lane (East) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	2	0	0	0	0	0	3	2.20
0715 - 0730	0	0	0	0	0	0	0	0	0	0.00
0730 - 0745	1	0	0	0	0	0	0	0	1	0.20
0745 - 0800	2	0	0	0	0	0	0	0	2	0.40
Hourly Total	4	0	2	0	0	0	0	0	6	2.80
Hourly Average	1.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	1.50	0.70
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
0830 - 0845	2	0	0	0	0	0	0	0	2	0.40
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	2	0	0	0	0	0	0	0	2	0.40
Hourly Average	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.10
0900 - 0915	0	0	3	0	0	0	0	0	3	3.00
0915 - 0930	0	0	1	0	0	0	0	0	1	1.00
0930 - 0945	0	0	1	0	0	0	0	0	1	1.00
0945 - 1000	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	6	0	0	0	0	0	6	6.00
Hourly Average	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	1.50	1.50
Session Total	6	0	8	0	0	0	0	0	14	9.20
Session Average	0.50	0.00	0.67	0.00	0.00	0.00	0.00	0.00	1.17	0.77

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 3.6: Right from Nell Lane (East) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	2	0	0	0	0	0	2	2.00
1615 - 1630	0	0	1	0	0	0	0	0	1	1.00
1630 - 1645	0	0	3	0	0	0	0	0	3	3.00
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	6	0	0	0	0	0	6	6.00
Hourly Average	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	1.50	1.50
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	1	0	0	0	0	0	1	1.00
1730 - 1745	0	0	2	0	0	0	0	0	2	2.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	3	0	0	0	0	0	3	3.00
Hourly Average	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.75	0.75
1800 - 1815	0	0	0	0	0	0	0	0	0	0.00
1815 - 1830	0	0	0	0	0	0	0	0	0	0.00
1830 - 1845	0	0	1	0	0	0	0	0	1	1.00
1845 - 1900	1	0	0	0	0	0	0	0	1	0.20
Hourly Total	1	0	1	0	0	0	0	0	2	1.20
Hourly Average	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.50	0.30
Session Total	1	0	10	0	0	0	0	0	11	10.20
Session Average	0.08	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.92	0.85

Manchester
Classified Junction Count

Site 3 of 4
A5103 Princess Road (North)
Nell Lane (East)
A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.7: Left from A5103 Princess Road (South) to Nell Lane (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	19	0	3	0	0	1	23	24.00
0715 - 0730	0	0	17	0	4	0	0	1	22	23.00
0730 - 0745	0	0	24	1	2	0	0	0	27	27.00
0745 - 0800	0	1	23	0	6	1	0	0	31	30.90
Hourly Total	**0**	**1**	**83**	**1**	**15**	**1**	**0**	**2**	103	104.90
Hourly Average	**0.00**	**0.25**	**20.75**	**0.25**	**3.75**	**0.25**	**0.00**	**0.50**	25.75	26.23
0800 - 0815	0	0	29	0	13	0	0	0	42	42.00
0815 - 0830	1	0	34	0	8	0	0	0	43	42.20
0830 - 0845	0	0	23	4	3	0	0	0	30	30.00
0845 - 0900	0	1	19	0	12	0	0	0	32	31.40
Hourly Total	**1**	**1**	**105**	**4**	**36**	**0**	**0**	**0**	147	145.60
Hourly Average	**0.25**	**0.25**	**26.25**	**1.00**	**9.00**	**0.00**	**0.00**	**0.00**	36.75	36.40
0900 - 0915	0	0	42	0	10	0	0	0	52	52.00
0915 - 0930	0	0	21	0	6	0	0	0	27	27.00
0930 - 0945	0	0	23	2	5	0	0	0	30	30.00
0945 - 1000	0	0	23	1	2	0	0	0	26	26.00
Hourly Total	**0**	**0**	**109**	**3**	**23**	**0**	**0**	**0**	135	135.00
Hourly Average	**0.00**	**0.00**	**27.25**	**0.75**	**5.75**	**0.00**	**0.00**	**0.00**	33.75	33.75

Session Total	**1**	**2**	**297**	**8**	**74**	**1**	**0**	**2**	385	385.50
Session Average	**0.08**	**0.17**	**24.75**	**0.67**	**6.17**	**0.08**	**0.00**	**0.17**	32.08	32.13

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 3.7: Left from A5103 Princess Road (South) to Nell Lane (West)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	42	0	2	0	0	0	44	44.00
1615 - 1630	0	0	54	1	3	0	0	1	59	60.00
1630 - 1645	0	1	34	1	6	0	0	0	42	41.40
1645 - 1700	0	0	58	1	5	0	0	0	64	64.00
Hourly Total	**0**	**1**	**188**	**3**	**16**	**0**	**0**	**1**	209	209.40
Hourly Average	**0.00**	**0.25**	**47.00**	**0.75**	**4.00**	**0.00**	**0.00**	**0.25**	52.25	52.35
1700 - 1715	0	0	51	1	1	2	0	0	55	56.00
1715 - 1730	0	0	68	0	5	0	0	0	73	73.00
1730 - 1745	0	0	114	0	14	0	0	1	129	130.00
1745 - 1800	0	0	87	1	6	0	0	0	94	94.00
Hourly Total	**0**	**0**	**320**	**2**	**26**	**2**	**0**	**1**	351	353.00
Hourly Average	**0.00**	**0.00**	**80.00**	**0.50**	**6.50**	**0.50**	**0.00**	**0.25**	87.75	88.25
1800 - 1815	0	0	67	0	7	0	0	0	74	74.00
1815 - 1830	0	0	71	2	7	1	0	0	81	81.50
1830 - 1845	1	0	53	2	2	0	0	0	58	57.20
1845 - 1900	0	0	44	1	2	0	0	0	47	47.00
Hourly Total	**1**	**0**	**235**	**5**	**18**	**1**	**0**	**0**	260	259.70
Hourly Average	**0.25**	**0.00**	**58.75**	**1.25**	**4.50**	**0.25**	**0.00**	**0.00**	65.00	64.93

Session Total	**1**	**1**	**743**	**10**	**60**	**3**	**0**	**2**	820	822.10
Session Average	**0.08**	**0.08**	**61.92**	**0.83**	**5.00**	**0.25**	**0.00**	**0.17**	68.33	68.51

Manchester
Classified Junction Count

Site 3 of 4
A5103 Princess Road (North)
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A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.8: Eastbound from A5103 Princess Road (South) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	2	286	3	57	5	4	5	362	373.50
0715 - 0730	3	2	404	4	59	6	6	4	488	499.20
0730 - 0745	2	2	441	1	45	6	6	2	505	515.00
0745 - 0800	3	1	428	9	46	4	3	8	502	512.90
Hourly Total	8	7	1559	17	207	21	19	19	1857	1900.60
Hourly Average	2.00	1.75	389.75	4.25	51.75	5.25	4.75	4.75	464.25	475.15
0800 - 0815	4	0	455	4	47	5	4	4	523	531.50
0815 - 0830	1	0	437	12	31	4	6	5	496	510.00
0830 - 0845	1	1	363	7	38	5	7	3	425	438.20
0845 - 0900	2	1	320	3	40	4	5	6	381	393.30
Hourly Total	8	2	1575	26	156	18	22	18	1825	1873.00
Hourly Average	2.00	0.50	393.75	6.50	39.00	4.50	5.50	4.50	456.25	468.25
0900 - 0915	2	1	355	19	34	3	6	8	428	443.10
0915 - 0930	2	1	365	15	34	4	4	2	427	434.00
0930 - 0945	1	2	324	10	50	4	4	4	399	408.20
0945 - 1000	0	1	287	10	57	10	6	7	378	397.20
Hourly Total	5	5	1331	54	175	21	20	21	1632	1682.50
Hourly Average	1.25	1.25	332.75	13.50	43.75	5.25	5.00	5.25	408.00	420.63

Session Total	21	14	4465	97	538	60	61	58	5314	5456.10
Session Average	1.75	1.17	372.08	8.08	44.83	5.00	5.08	4.83	442.83	454.68

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 3.8: Eastbound from A5103 Princess Road (South) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	1	365	23	31	2	1	7	430	438.70
1615 - 1630	1	2	414	17	34	2	4	5	479	488.20
1630 - 1645	0	0	404	6	26	1	0	5	442	447.50
1645 - 1700	0	1	413	19	31	2	1	4	471	476.70
Hourly Total	1	4	1596	65	122	7	6	21	1822	1851.10
Hourly Average	0.25	1.00	399.00	16.25	30.50	1.75	1.50	5.25	455.50	462.78
1700 - 1715	0	1	397	18	38	3	0	2	459	461.90
1715 - 1730	0	2	390	10	20	3	1	2	428	431.60
1730 - 1745	0	0	295	3	16	1	2	2	319	324.10
1745 - 1800	1	0	269	4	21	3	3	5	306	315.60
Hourly Total	1	3	1351	35	95	10	6	11	1512	1533.20
Hourly Average	0.25	0.75	337.75	8.75	23.75	2.50	1.50	2.75	378.00	383.30
1800 - 1815	2	2	306	2	12	1	1	3	329	331.00
1815 - 1830	1	0	309	6	14	0	0	5	335	339.20
1830 - 1845	0	0	333	5	21	0	0	1	360	361.00
1845 - 1900	0	0	417	11	24	1	0	3	456	459.50
Hourly Total	3	2	1365	24	71	2	1	12	1480	1490.70
Hourly Average	0.75	0.50	341.25	6.00	17.75	0.50	0.25	3.00	370.00	372.68

Session Total	5	9	4312	124	288	19	13	44	4814	4875.00
Session Average	0.42	0.75	359.33	10.33	24.00	1.58	1.08	3.67	401.17	406.25

Manchester
Classified Junction Count

Site 3 of 4
A5103 Princess Road (North)
Nell Lane (East)
A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.9: Right from A5103 Princess Road (South) to Nell Lane (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	14	0	2	0	0	0	16	16.00
0715 - 0730	0	0	31	0	6	0	0	0	37	37.00
0730 - 0745	0	0	16	0	3	1	1	0	21	22.80
0745 - 0800	0	0	28	1	1	0	0	0	30	30.00
Hourly Total	**0**	**0**	**89**	**1**	**12**	**1**	**1**	**0**	104	105.80
Hourly Average	**0.00**	**0.00**	**22.25**	**0.25**	**3.00**	**0.25**	**0.25**	**0.00**	26.00	26.45
0800 - 0815	0	0	35	0	8	0	0	0	43	43.00
0815 - 0830	0	0	39	0	4	0	0	0	43	43.00
0830 - 0845	0	0	34	1	5	0	0	0	40	40.00
0845 - 0900	0	0	28	0	3	1	0	1	33	34.50
Hourly Total	**0**	**0**	**136**	**1**	**20**	**1**	**0**	**1**	159	160.50
Hourly Average	**0.00**	**0.00**	**34.00**	**0.25**	**5.00**	**0.25**	**0.00**	**0.25**	39.75	40.13
0900 - 0915	0	0	31	1	4	1	0	0	37	37.50
0915 - 0930	0	0	29	0	3	0	0	0	32	32.00
0930 - 0945	0	0	22	1	5	1	0	0	29	29.50
0945 - 1000	0	0	12	0	7	1	0	0	20	20.50
Hourly Total	**0**	**0**	**94**	**2**	**19**	**3**	**0**	**0**	118	119.50
Hourly Average	**0.00**	**0.00**	**23.50**	**0.50**	**4.75**	**0.75**	**0.00**	**0.00**	29.50	29.88

Session Total	**0**	**0**	**319**	**4**	**51**	**5**	**1**	**1**	381	385.80
Session Average	**0.00**	**0.00**	**26.58**	**0.33**	**4.25**	**0.42**	**0.08**	**0.08**	31.75	32.15

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 3.9: Right from A5103 Princess Road (South) to Nell Lane (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	20	0	3	0	0	0	23	23.00
1615 - 1630	0	0	19	1	4	0	0	0	24	24.00
1630 - 1645	0	0	21	0	2	0	0	0	23	23.00
1645 - 1700	0	0	25	0	0	0	0	0	25	25.00
Hourly Total	**0**	**0**	**85**	**1**	**9**	**0**	**0**	**0**	95	95.00
Hourly Average	**0.00**	**0.00**	**21.25**	**0.25**	**2.25**	**0.00**	**0.00**	**0.00**	23.75	23.75
1700 - 1715	0	0	25	0	1	0	0	0	26	26.00
1715 - 1730	0	0	30	1	3	0	0	0	34	34.00
1730 - 1745	0	0	47	0	3	0	0	0	50	50.00
1745 - 1800	0	0	48	0	2	0	0	0	50	50.00
Hourly Total	**0**	**0**	**150**	**1**	**9**	**0**	**0**	**0**	160	160.00
Hourly Average	**0.00**	**0.00**	**37.50**	**0.25**	**2.25**	**0.00**	**0.00**	**0.00**	40.00	40.00
1800 - 1815	0	0	26	0	3	0	0	0	29	29.00
1815 - 1830	0	0	36	0	7	0	0	0	43	43.00
1830 - 1845	0	0	22	0	1	0	0	0	23	23.00
1845 - 1900	0	0	24	0	0	0	0	0	24	24.00
Hourly Total	**0**	**0**	**108**	**0**	**11**	**0**	**0**	**0**	119	119.00
Hourly Average	**0.00**	**0.00**	**27.00**	**0.00**	**2.75**	**0.00**	**0.00**	**0.00**	29.75	29.75

Session Total	**0**	**0**	**343**	**2**	**29**	**0**	**0**	**0**	374	374.00
Session Average	**0.00**	**0.00**	**28.58**	**0.17**	**2.42**	**0.00**	**0.00**	**0.00**	31.17	31.17

Manchester
Classified Junction Count

Site 3 of 4
A5103 Princess Road (North)
Nell Lane (East)
A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.10: Left from Nell Lane (West) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	3	0	0	0	0	0	3	3.00
0715 - 0730	0	0	7	0	0	0	0	0	7	7.00
0730 - 0745	0	0	5	0	0	0	0	0	5	5.00
0745 - 0800	0	0	6	0	0	0	0	0	6	6.00
Hourly Total	**0**	**0**	**21**	**0**	**0**	**0**	**0**	**0**	21	21.00
Hourly Average	**0.00**	**0.00**	**5.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.25**	**5.25**
0800 - 0815	0	0	16	0	1	0	0	0	17	17.00
0815 - 0830	1	0	8	0	0	0	0	0	9	8.20
0830 - 0845	0	0	22	1	5	0	0	0	28	28.00
0845 - 0900	0	0	15	0	2	0	0	0	17	17.00
Hourly Total	**1**	**0**	**61**	**1**	**8**	**0**	**0**	**0**	71	70.20
Hourly Average	**0.25**	**0.00**	**15.25**	**0.25**	**2.00**	**0.00**	**0.00**	**0.00**	**17.75**	**17.55**
0900 - 0915	1	0	8	0	3	0	0	0	12	11.20
0915 - 0930	1	0	9	0	0	0	0	0	10	9.20
0930 - 0945	0	0	8	1	3	0	0	0	12	12.00
0945 - 1000	0	0	10	1	1	0	0	0	12	12.00
Hourly Total	**2**	**0**	**35**	**2**	**7**	**0**	**0**	**0**	46	44.40
Hourly Average	**0.50**	**0.00**	**8.75**	**0.50**	**1.75**	**0.00**	**0.00**	**0.00**	**11.50**	**11.10**

Session Total	**3**	**0**	**117**	**3**	**15**	**0**	**0**	**0**	138	135.60
Session Average	**0.25**	**0.00**	**9.75**	**0.25**	**1.25**	**0.00**	**0.00**	**0.00**	**11.50**	**11.30**

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 3.10: Left from Nell Lane (West) to A5103 Princess Road (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	17	0	2	0	0	0	19	19.00
1615 - 1630	0	0	15	0	2	0	0	0	17	17.00
1630 - 1645	0	0	21	0	0	0	0	0	21	21.00
1645 - 1700	0	0	19	0	2	0	0	0	21	21.00
Hourly Total	**0**	**0**	**72**	**0**	**6**	**0**	**0**	**0**	78	78.00
Hourly Average	**0.00**	**0.00**	**18.00**	**0.00**	**1.50**	**0.00**	**0.00**	**0.00**	**19.50**	**19.50**
1700 - 1715	0	0	25	2	0	0	0	0	27	27.00
1715 - 1730	0	0	13	0	0	0	0	0	13	13.00
1730 - 1745	0	0	5	0	1	0	0	0	6	6.00
1745 - 1800	0	0	9	0	0	0	0	0	9	9.00
Hourly Total	**0**	**0**	**52**	**2**	**1**	**0**	**0**	**0**	55	55.00
Hourly Average	**0.00**	**0.00**	**13.00**	**0.50**	**0.25**	**0.00**	**0.00**	**0.00**	**13.75**	**13.75**
1800 - 1815	0	0	7	0	0	0	0	0	7	7.00
1815 - 1830	0	0	4	0	0	0	0	0	4	4.00
1830 - 1845	0	0	5	0	0	0	0	0	5	5.00
1845 - 1900	0	0	12	1	0	1	0	0	14	14.50
Hourly Total	**0**	**0**	**28**	**1**	**0**	**1**	**0**	**0**	30	30.50
Hourly Average	**0.00**	**0.00**	**7.00**	**0.25**	**0.00**	**0.25**	**0.00**	**0.00**	**7.50**	**7.63**

Session Total	**0**	**0**	**152**	**3**	**7**	**1**	**0**	**0**	163	163.50
Session Average	**0.00**	**0.00**	**12.67**	**0.25**	**0.58**	**0.08**	**0.00**	**0.00**	**13.58**	**13.63**

Manchester
Classified Junction Count

Site 3 of 4
A5103 Princess Road (North)
Nell Lane (East)
A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.11: Southbound from Nell Lane (West) to Nell Lane (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	0	0	4	1	0	0	0	0	5	5.00
0715 - 0730	1	0	8	0	0	0	0	0	9	8.20
0730 - 0745	2	0	11	1	4	0	0	0	18	16.40
0745 - 0800	2	0	25	0	3	0	0	0	30	28.40
Hourly Total	5	0	48	2	7	0	0	0	62	58.00
Hourly Average	1.25	0.00	12.00	0.50	1.75	0.00	0.00	0.00	15.50	14.50
0800 - 0815	0	0	21	0	0	1	0	0	22	22.50
0815 - 0830	3	0	30	0	2	1	0	0	36	34.10
0830 - 0845	2	0	21	0	4	0	0	0	27	25.40
0845 - 0900	2	0	30	1	3	0	0	0	36	34.40
Hourly Total	7	0	102	1	9	2	0	0	121	116.40
Hourly Average	1.75	0.00	25.50	0.25	2.25	0.50	0.00	0.00	30.25	29.10
0900 - 0915	2	0	25	0	2	0	0	1	30	29.40
0915 - 0930	2	0	14	0	2	0	0	0	18	16.40
0930 - 0945	0	0	14	0	3	0	0	1	18	19.00
0945 - 1000	2	0	13	0	2	0	0	0	17	15.40
Hourly Total	6	0	66	0	9	0	0	2	83	80.20
Hourly Average	1.50	0.00	16.50	0.00	2.25	0.00	0.00	0.50	20.75	20.05

Session Total	18	0	216	3	25	2	0	2	266	254.60
Session Average	1.50	0.00	18.00	0.25	2.08	0.17	0.00	0.17	22.17	21.22

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

1600 - 1900 (Friday PM Peak)

	Movement 3.11: Southbound from Nell Lane (West) to Nell Lane (East)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	1	0	39	0	1	0	0	0	41	40.20
1615 - 1630	1	0	26	1	2	0	0	0	30	29.20
1630 - 1645	1	0	20	1	4	0	0	0	26	25.20
1645 - 1700	1	0	22	0	2	0	0	0	25	24.20
Hourly Total	4	0	107	2	9	0	0	0	122	118.80
Hourly Average	1.00	0.00	26.75	0.50	2.25	0.00	0.00	0.00	30.50	29.70
1700 - 1715	0	1	27	0	1	0	0	0	29	28.40
1715 - 1730	6	0	28	1	3	0	0	0	38	33.20
1730 - 1745	3	0	13	1	0	0	0	0	17	14.60
1745 - 1800	4	0	25	0	0	0	0	0	29	25.80
Hourly Total	13	1	93	2	4	0	0	0	113	102.00
Hourly Average	3.25	0.25	23.25	0.50	1.00	0.00	0.00	0.00	28.25	25.50
1800 - 1815	3	0	29	0	0	0	0	0	32	29.60
1815 - 1830	1	0	16	0	2	0	0	0	19	18.20
1830 - 1845	1	0	22	1	1	0	0	0	25	24.20
1845 - 1900	1	0	19	0	0	0	0	0	20	19.20
Hourly Total	6	0	86	1	3	0	0	0	96	91.20
Hourly Average	1.50	0.00	21.50	0.25	0.75	0.00	0.00	0.00	24.00	22.80

Session Total	23	1	286	5	16	0	0	0	331	312.00
Session Average	1.92	0.08	23.83	0.42	1.33	0.00	0.00	0.00	27.58	26.00

Manchester
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Site 3 of 4
A5103 Princess Road (North)
Nell Lane (East)
A5103 Princess Road (South)
Nell Lane (West)

Lat/Long
lat 53.428695° lon -2.252406°

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 4°C

0700 - 1000 (Friday AM Peak)

	Movement 3.12: Right from Nell Lane (West) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0700 - 0715	1	0	24	0	2	1	0	0	28	27.70
0715 - 0730	0	0	28	0	4	2	0	0	34	35.00
0730 - 0745	0	0	30	1	5	0	0	0	36	36.00
0745 - 0800	0	0	42	0	4	0	0	0	46	46.00
Hourly Total	**1**	**0**	**124**	**1**	**15**	**3**	**0**	**0**	144	144.70
Hourly Average	**0.25**	**0.00**	**31.00**	**0.25**	**3.75**	**0.75**	**0.00**	**0.00**	36.00	36.18
0800 - 0815	0	0	53	0	3	0	0	0	56	56.00
0815 - 0830	0	1	48	1	3	1	0	0	54	53.90
0830 - 0845	0	0	50	1	6	0	0	0	57	57.00
0845 - 0900	1	0	56	1	4	0	0	1	63	63.20
Hourly Total	**1**	**1**	**207**	**3**	**16**	**1**	**0**	**1**	230	230.10
Hourly Average	**0.25**	**0.25**	**51.75**	**0.75**	**4.00**	**0.25**	**0.00**	**0.25**	57.50	57.53
0900 - 0915	0	0	34	0	1	0	0	0	35	35.00
0915 - 0930	0	0	42	0	4	0	0	0	46	46.00
0930 - 0945	0	0	40	0	4	0	0	1	45	46.00
0945 - 1000	0	0	31	1	2	0	0	0	34	34.00
Hourly Total	**0**	**0**	**147**	**1**	**11**	**0**	**0**	**1**	160	161.00
Hourly Average	**0.00**	**0.00**	**36.75**	**0.25**	**2.75**	**0.00**	**0.00**	**0.25**	40.00	40.25

Session Total	**2**	**1**	**478**	**5**	**42**	**4**	**0**	**2**	534	535.80
Session Average	**0.17**	**0.08**	**39.83**	**0.42**	**3.50**	**0.33**	**0.00**	**0.17**	44.50	44.65

Date
Friday 11 February 2022

Weather
Cloudy
Temp: 7°C

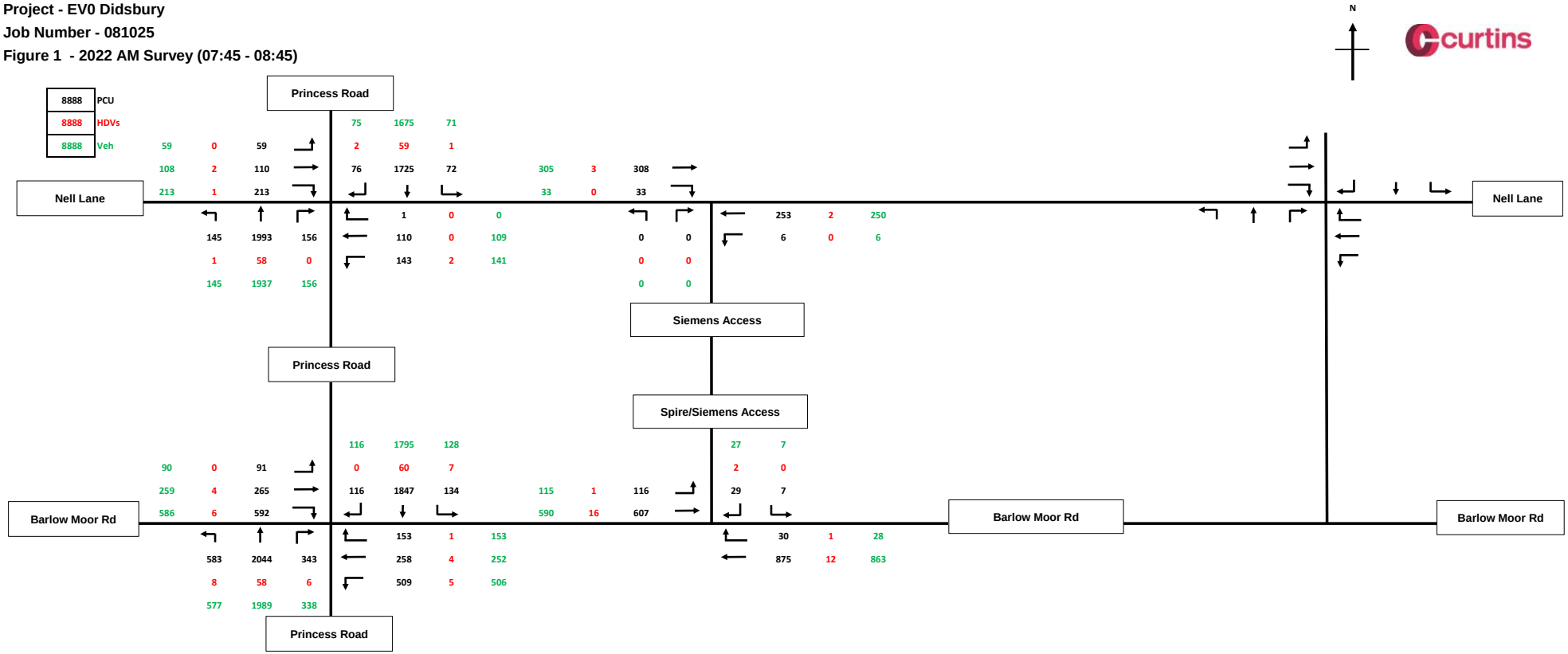
1600 - 1900 (Friday PM Peak)

	Movement 3.12: Right from Nell Lane (West) to A5103 Princess Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1600 - 1615	0	0	67	0	5	0	0	0	72	72.00
1615 - 1630	0	0	68	3	9	1	0	0	81	81.50
1630 - 1645	0	0	44	2	2	0	0	2	50	52.00
1645 - 1700	1	1	33	0	2	1	0	0	38	37.10
Hourly Total	**1**	**1**	**212**	**5**	**18**	**2**	**0**	**2**	241	242.60
Hourly Average	**0.25**	**0.25**	**53.00**	**1.25**	**4.50**	**0.50**	**0.00**	**0.50**	60.25	60.65
1700 - 1715	0	0	56	1	0	0	0	0	57	57.00
1715 - 1730	0	0	45	0	4	0	0	0	49	49.00
1730 - 1745	0	0	30	2	5	0	0	0	37	37.00
1745 - 1800	0	0	41	1	2	0	0	0	44	44.00
Hourly Total	**0**	**0**	**172**	**4**	**11**	**0**	**0**	**0**	187	187.00
Hourly Average	**0.00**	**0.00**	**43.00**	**1.00**	**2.75**	**0.00**	**0.00**	**0.00**	46.75	46.75
1800 - 1815	0	1	35	0	1	0	0	0	37	36.40
1815 - 1830	0	0	50	0	0	0	0	0	50	50.00
1830 - 1845	0	0	47	2	2	0	0	0	51	51.00
1845 - 1900	0	0	40	2	2	0	0	0	44	44.00
Hourly Total	**0**	**1**	**172**	**4**	**5**	**0**	**0**	**0**	182	181.40
Hourly Average	**0.00**	**0.25**	**43.00**	**1.00**	**1.25**	**0.00**	**0.00**	**0.00**	45.50	45.35

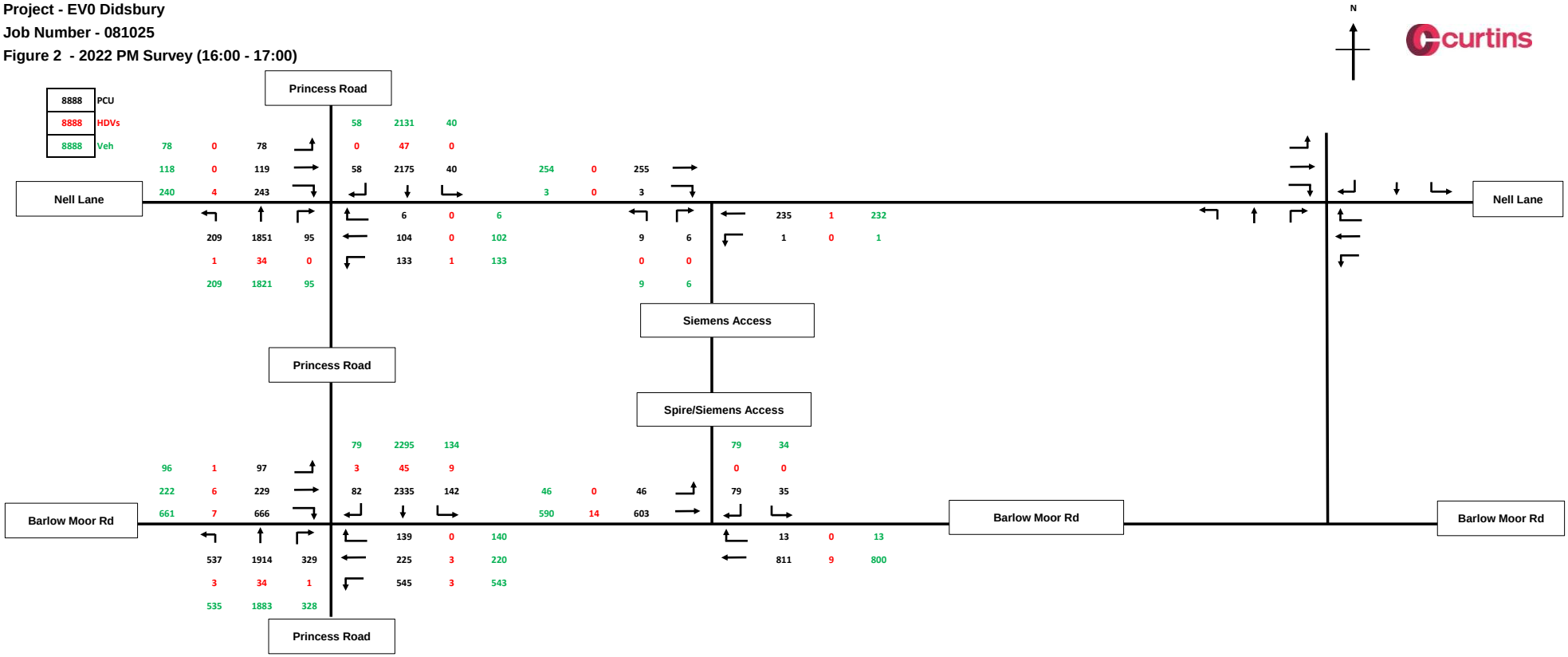
Session Total	**1**	**2**	**556**	**13**	**34**	**2**	**0**	**2**	610	611.00
Session Average	**0.08**	**0.17**	**46.33**	**1.08**	**2.83**	**0.17**	**0.00**	**0.17**	50.83	50.92

Appendix D – Traffic Figures

Project - EV0 Didsbury
Job Number - 081025
Figure 1 - 2022 AM Survey (07:45 - 08:45)



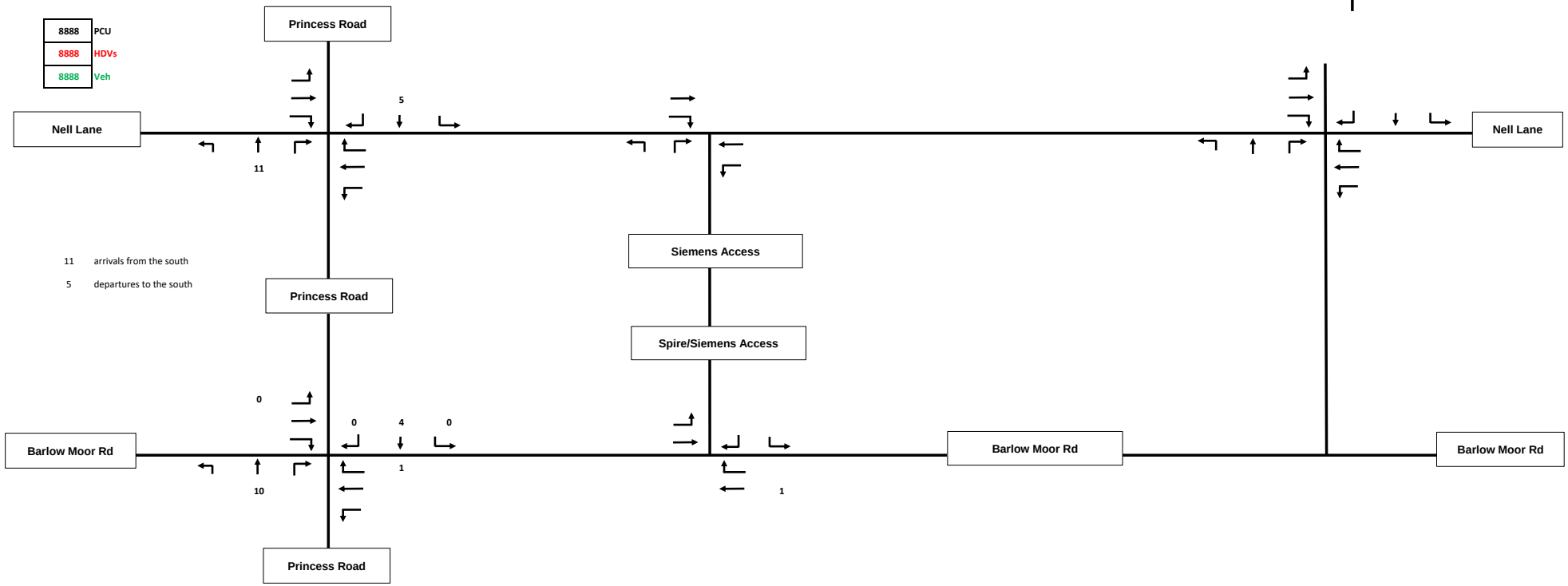
Project - EV0 Didsbury
Job Number - 081025
Figure 2 - 2022 PM Survey (16:00 - 17:00)



Project - EV0 Didsbury

Job Number - 081025

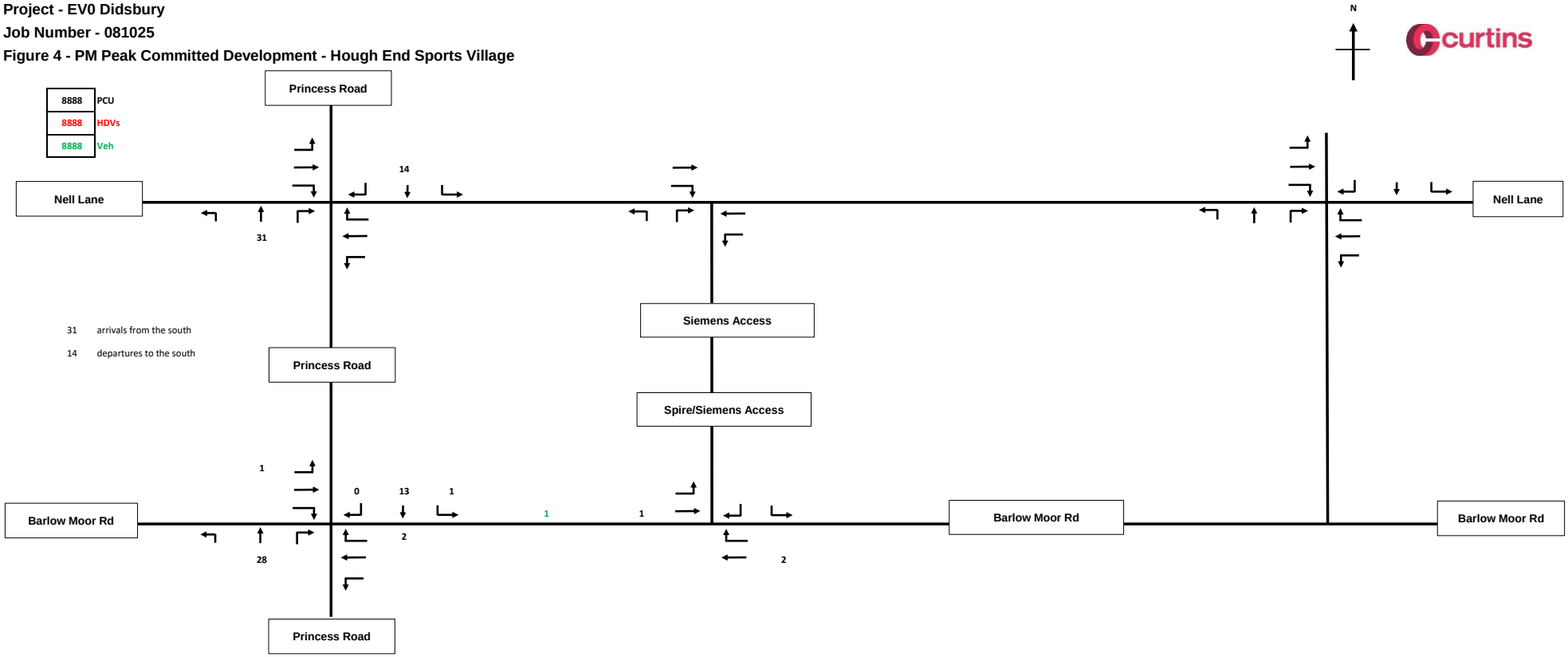
Figure 3 - AM Peak Committed Development - Hough End Sports Village



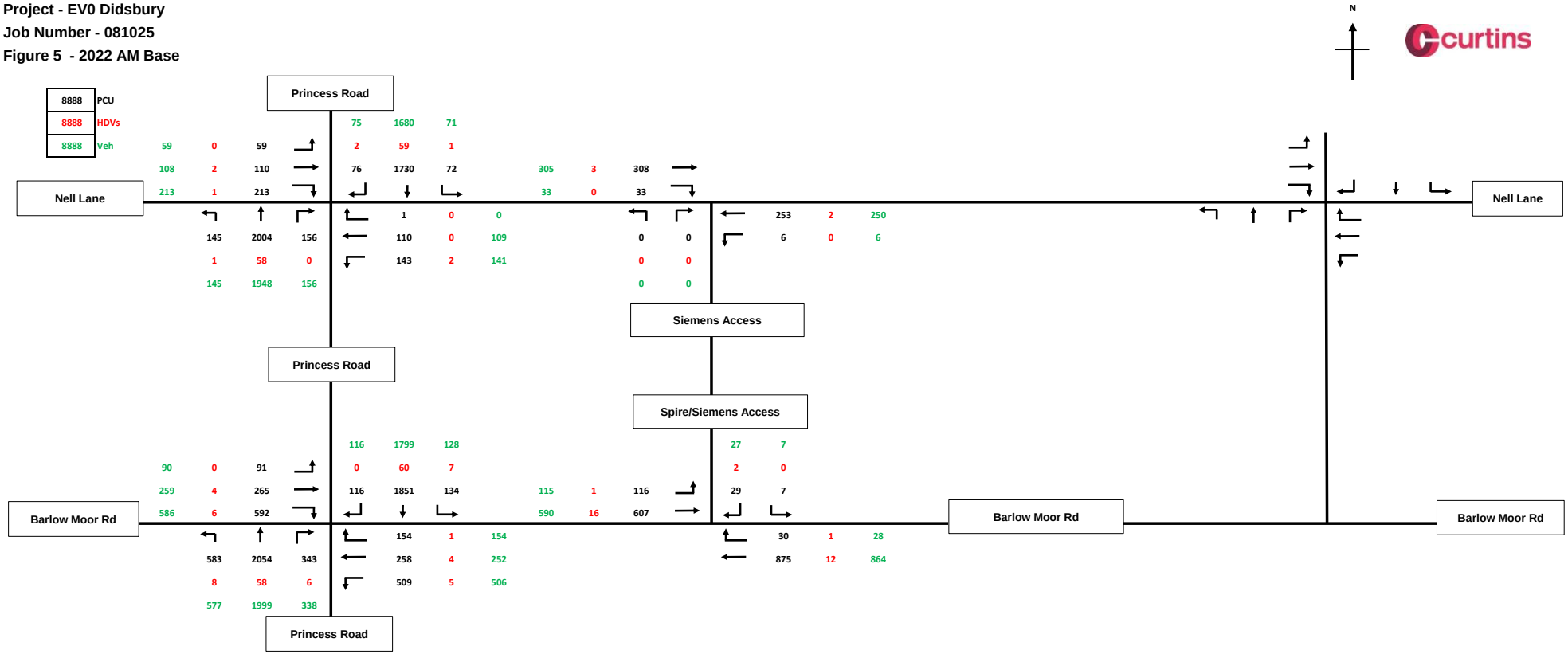
Project - EV0 Didsbury

Job Number - 081025

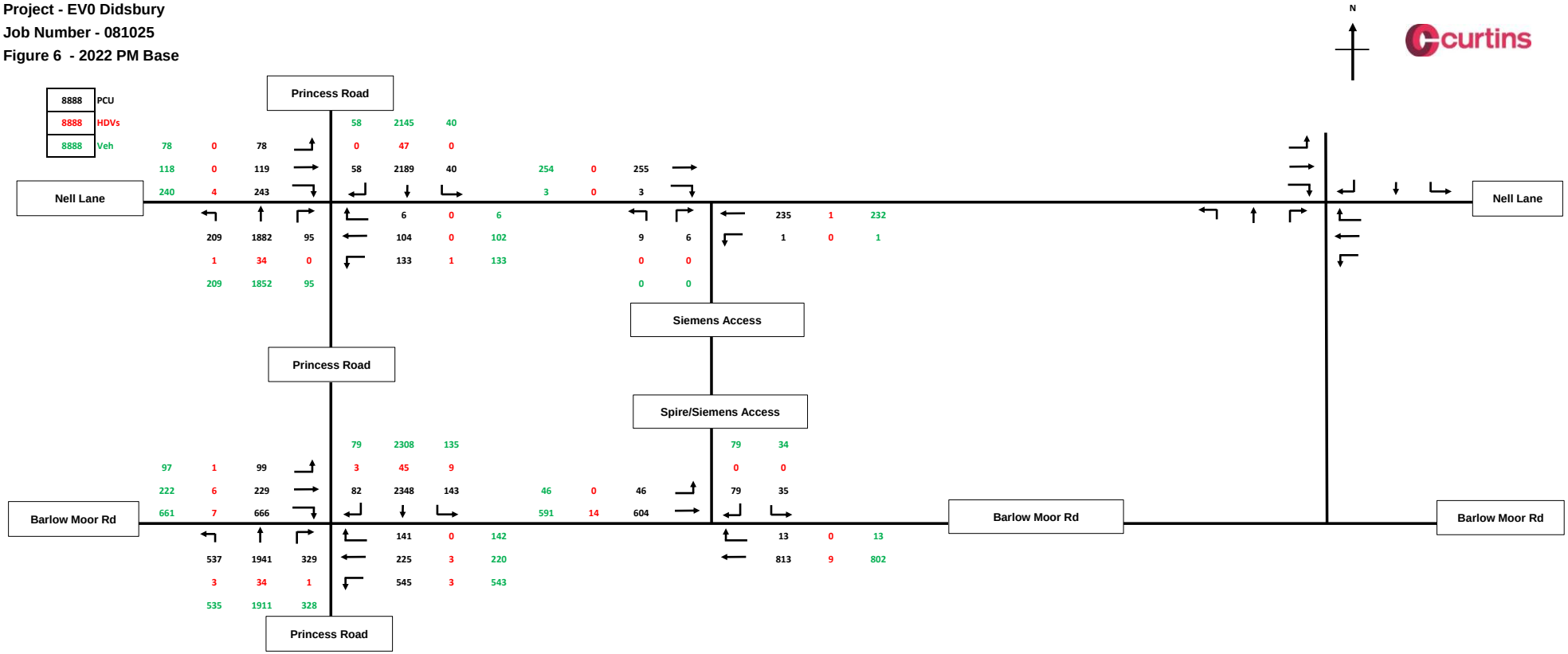
Figure 4 - PM Peak Committed Development - Hough End Sports Village



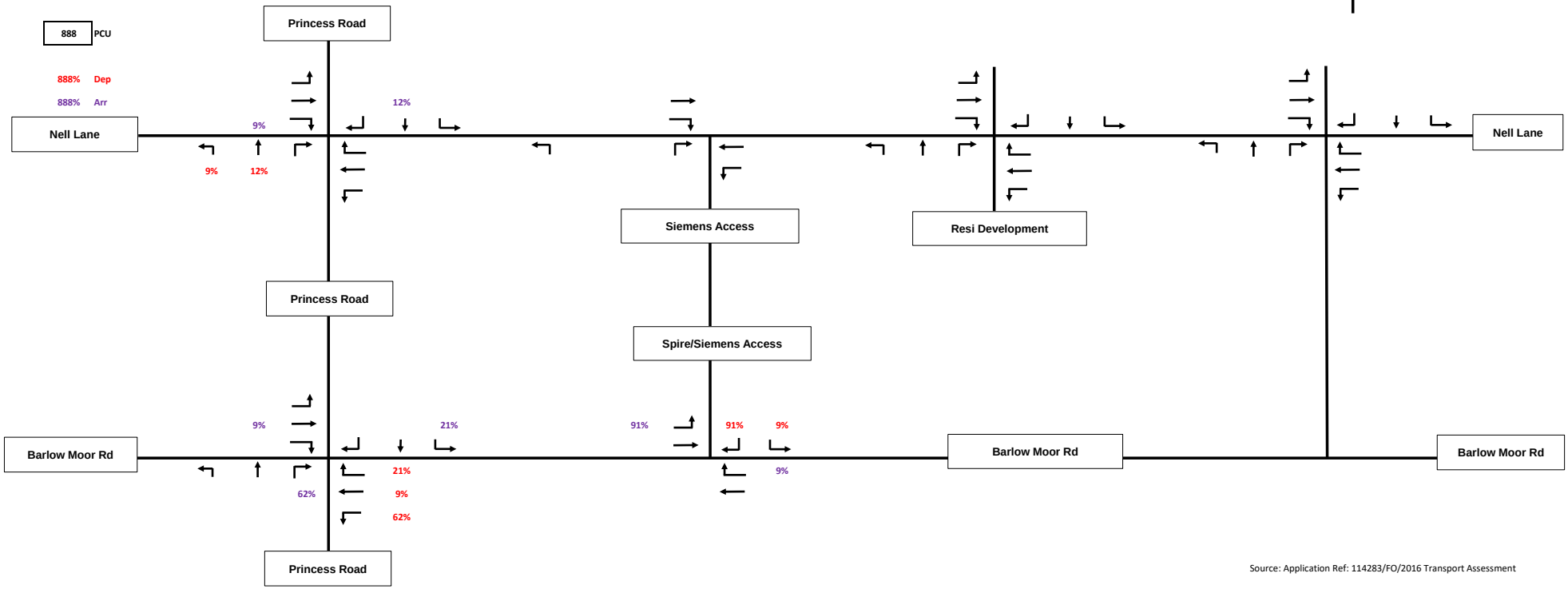
Project - EV0 Didsbury
Job Number - 081025
Figure 5 - 2022 AM Base



Project - EV0 Didsbury
Job Number - 081025
Figure 6 - 2022 PM Base



Project - EV0 Didsbury
Job Number - 081025
Figure 7 - Consented TA Employment Distribution

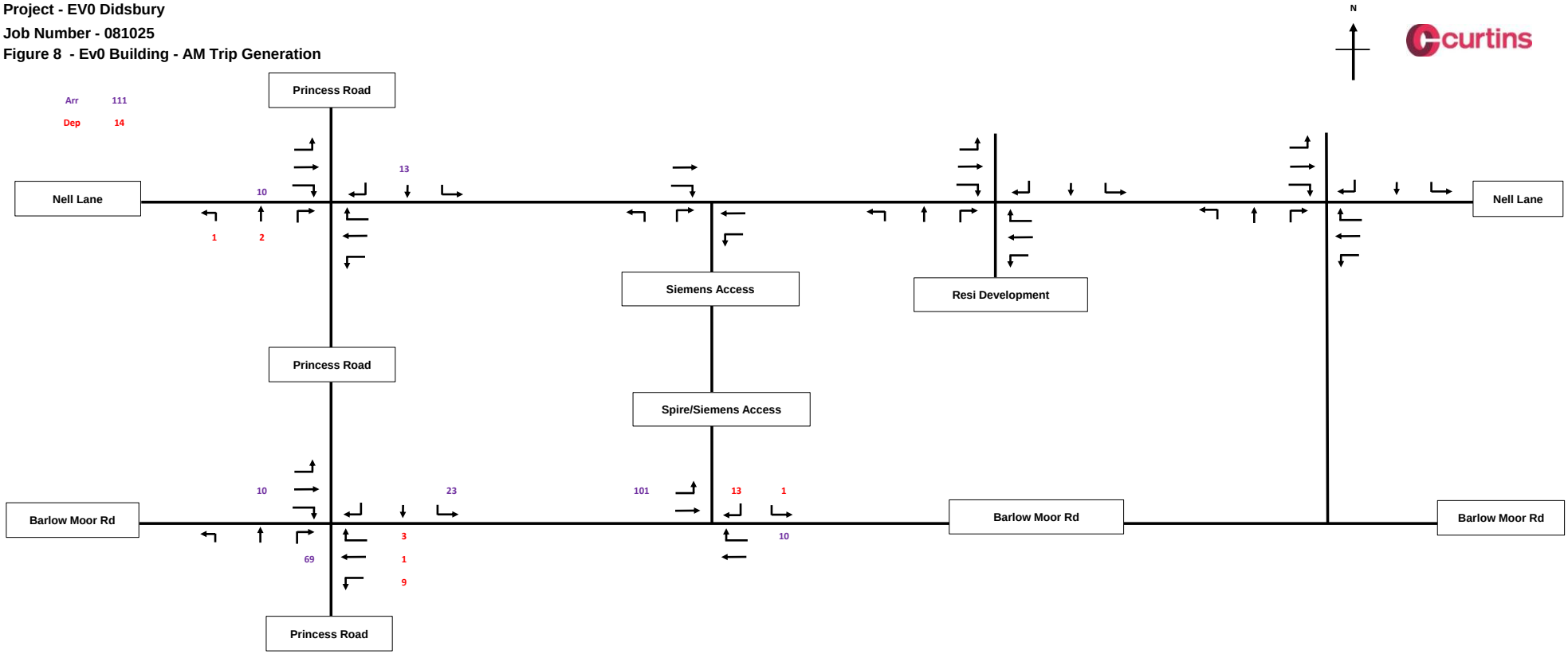


Source: Application Ref: 114283/FO/2016 Transport Assessment

Project - EV0 Didsbury

Job Number - 081025

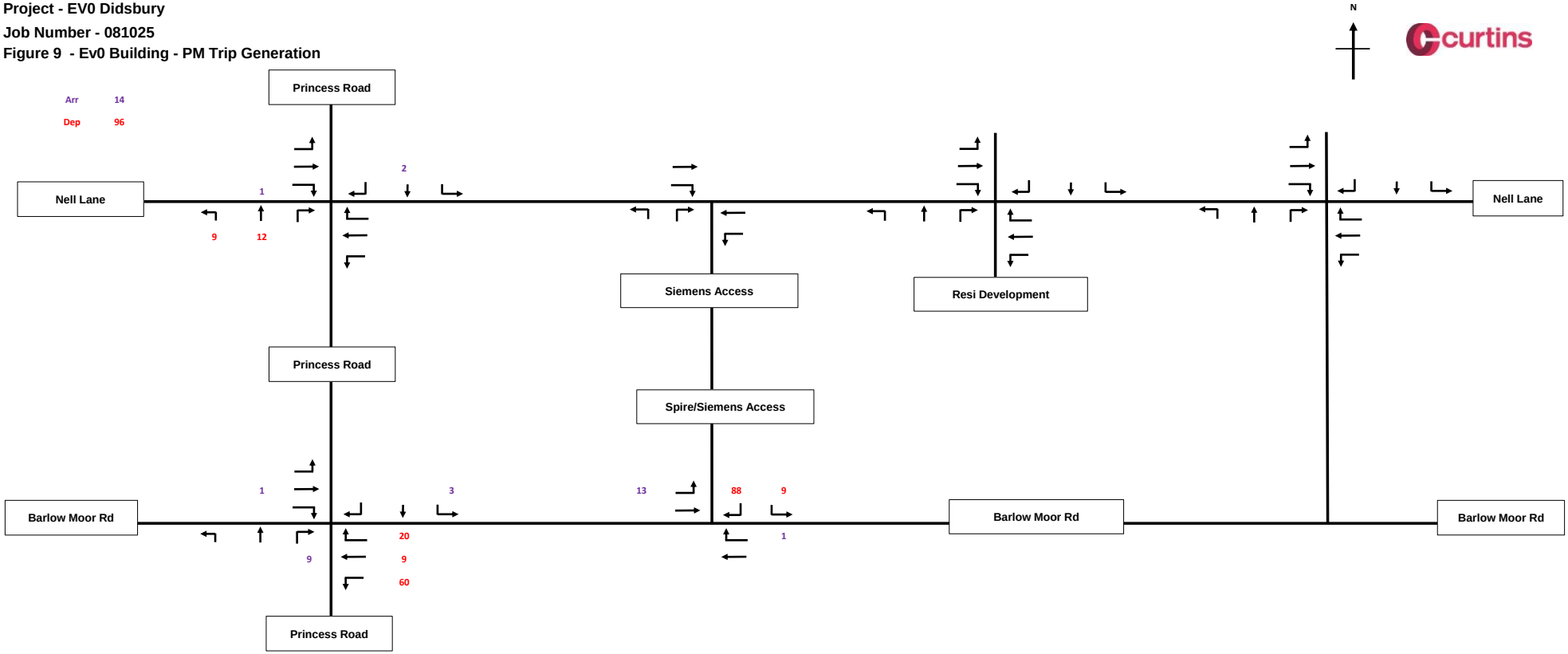
Figure 8 - Ev0 Building - AM Trip Generation



Project - EV0 Didsbury

Job Number - 081025

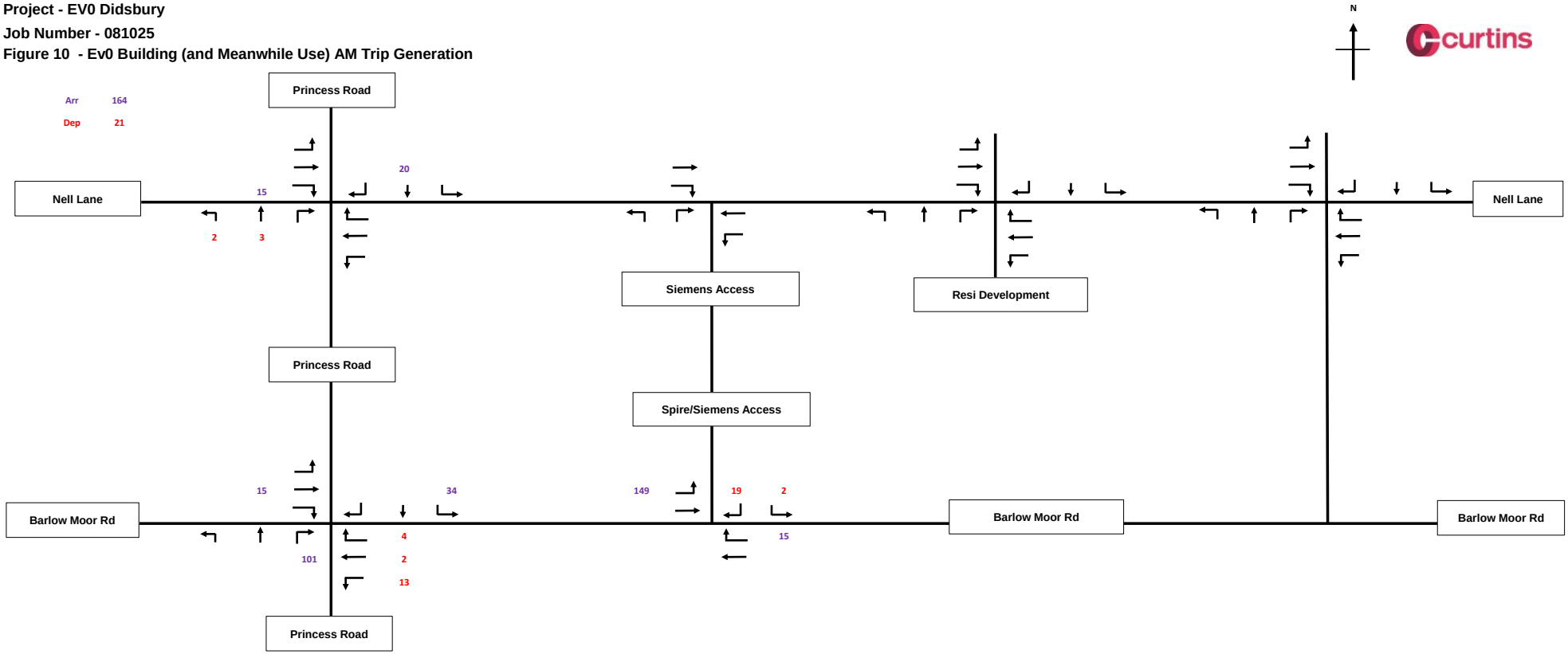
Figure 9 - Ev0 Building - PM Trip Generation



Project - EV0 Didsbury

Job Number - 081025

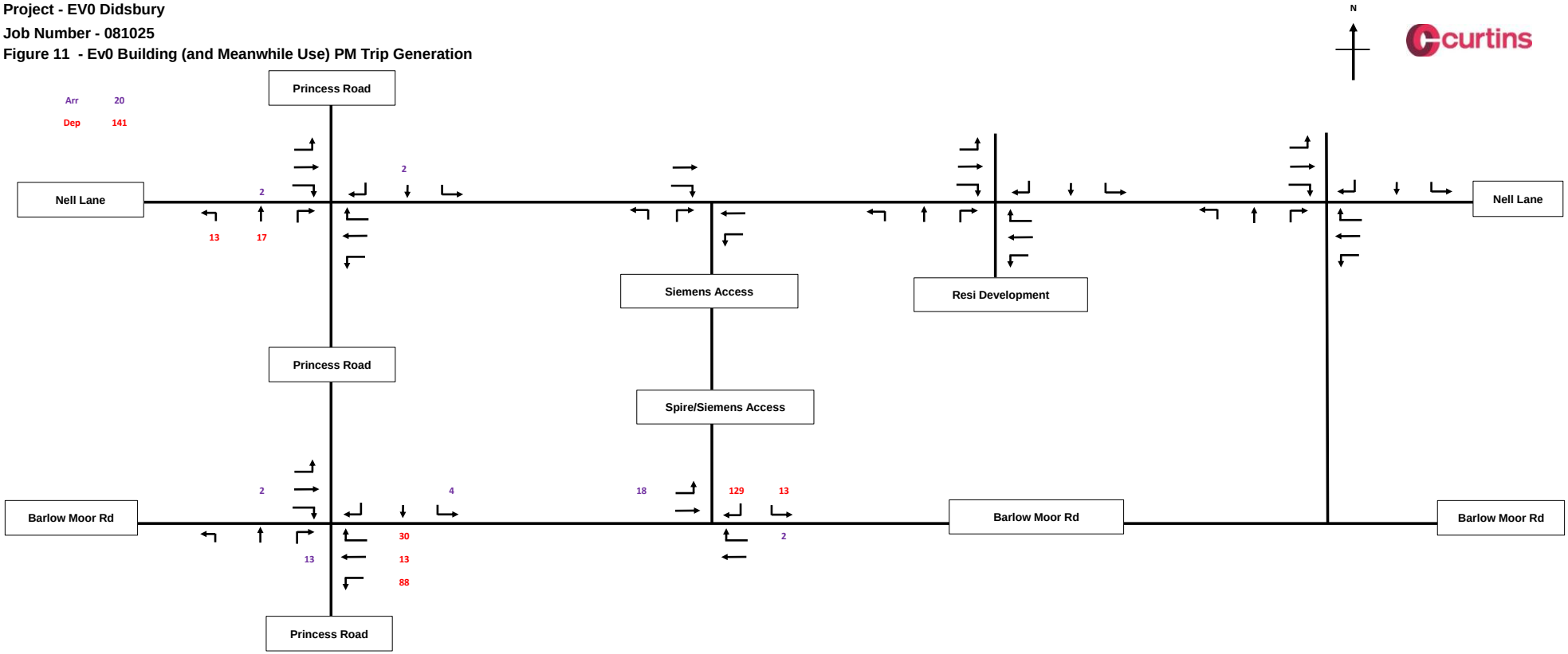
Figure 10 - Ev0 Building (and Meanwhile Use) AM Trip Generation



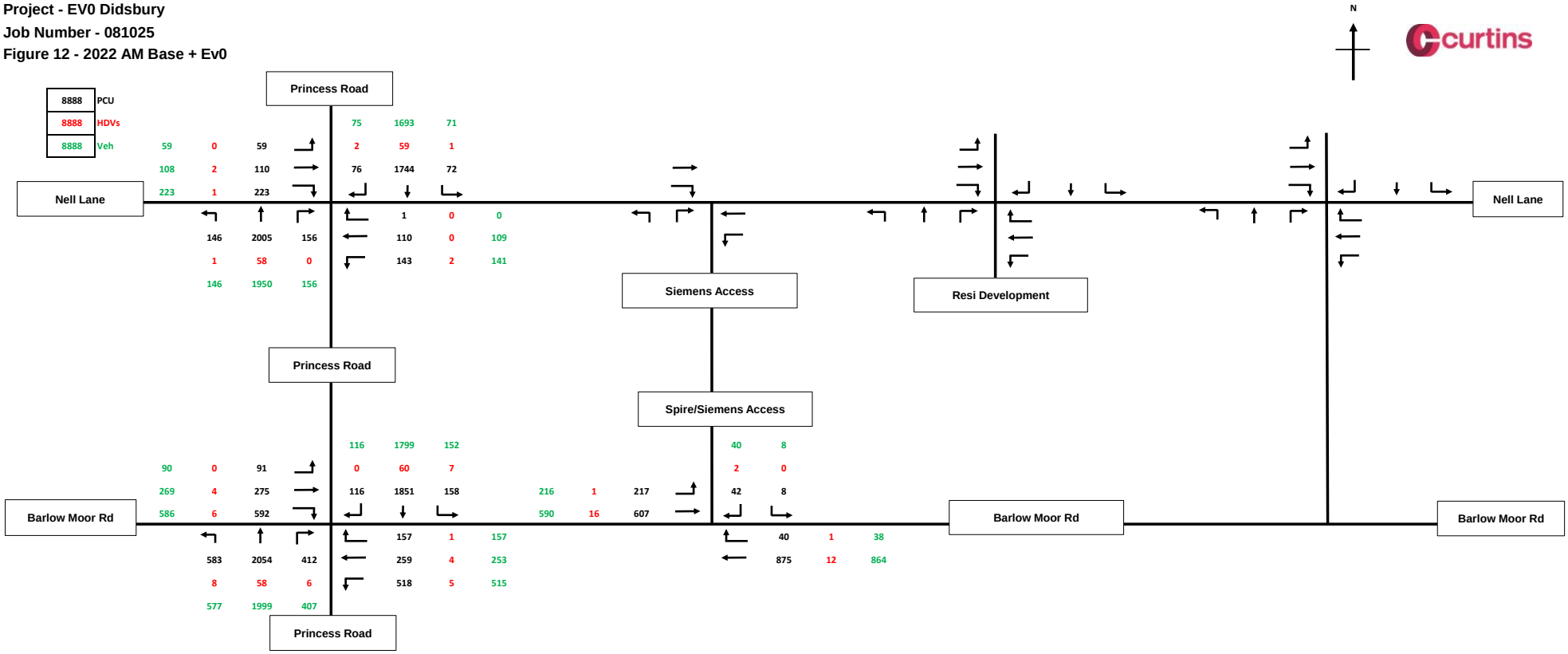
Project - EV0 Didsbury

Job Number - 081025

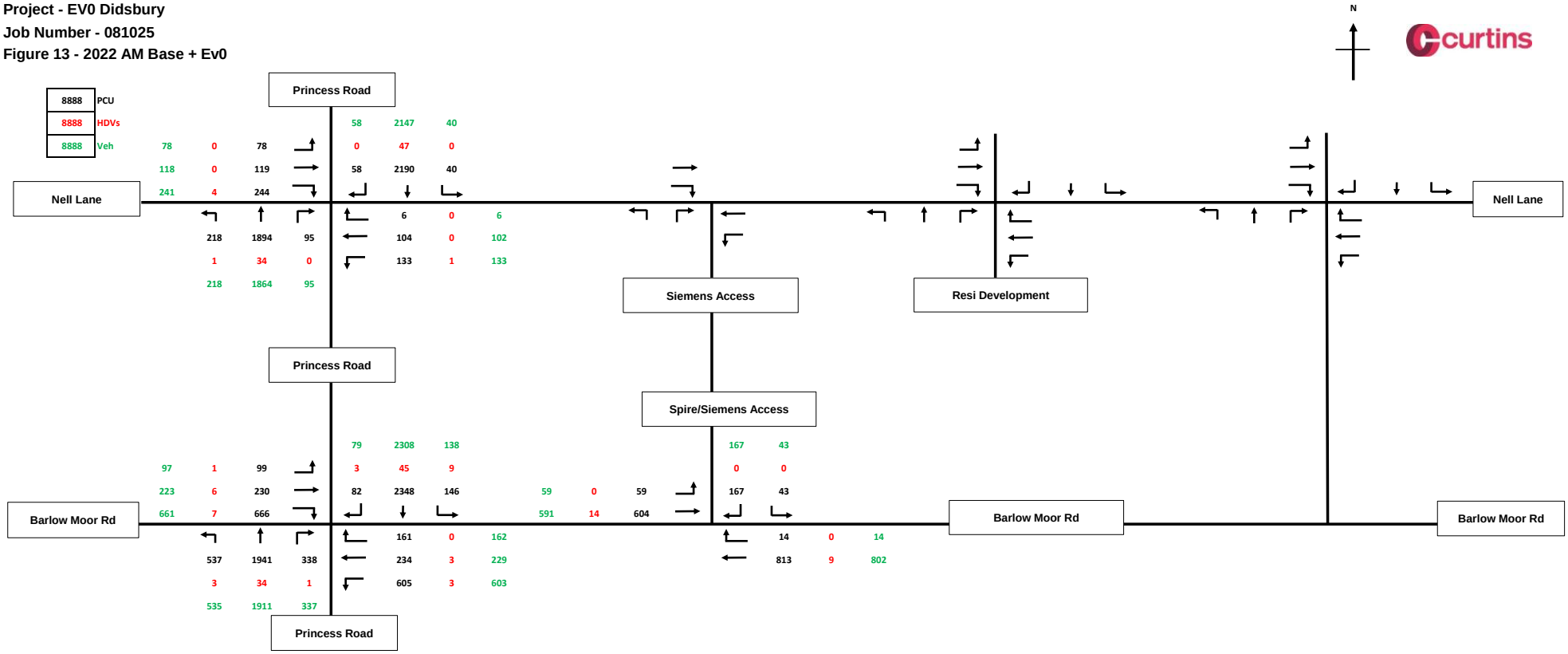
Figure 11 - Ev0 Building (and Meanwhile Use) PM Trip Generation



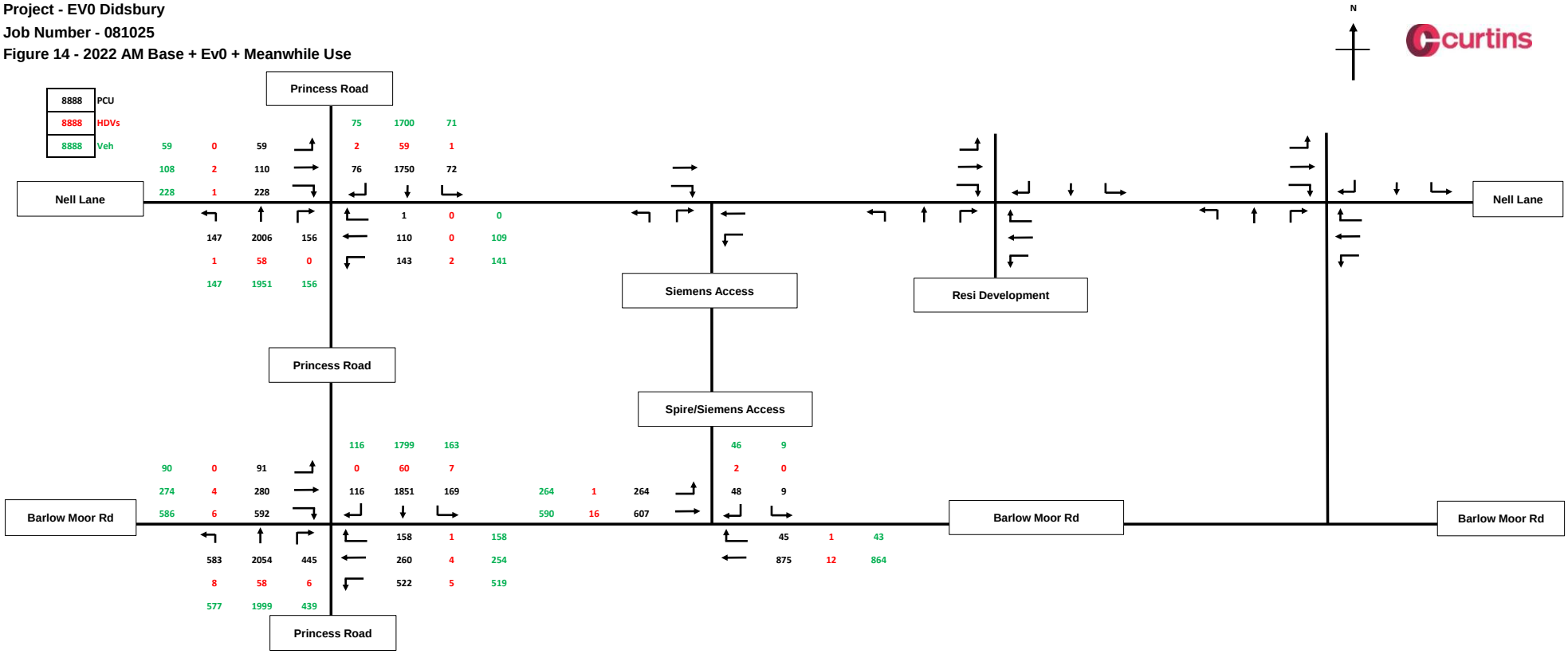
Project - EV0 Didsbury
Job Number - 081025
Figure 12 - 2022 AM Base + Ev0



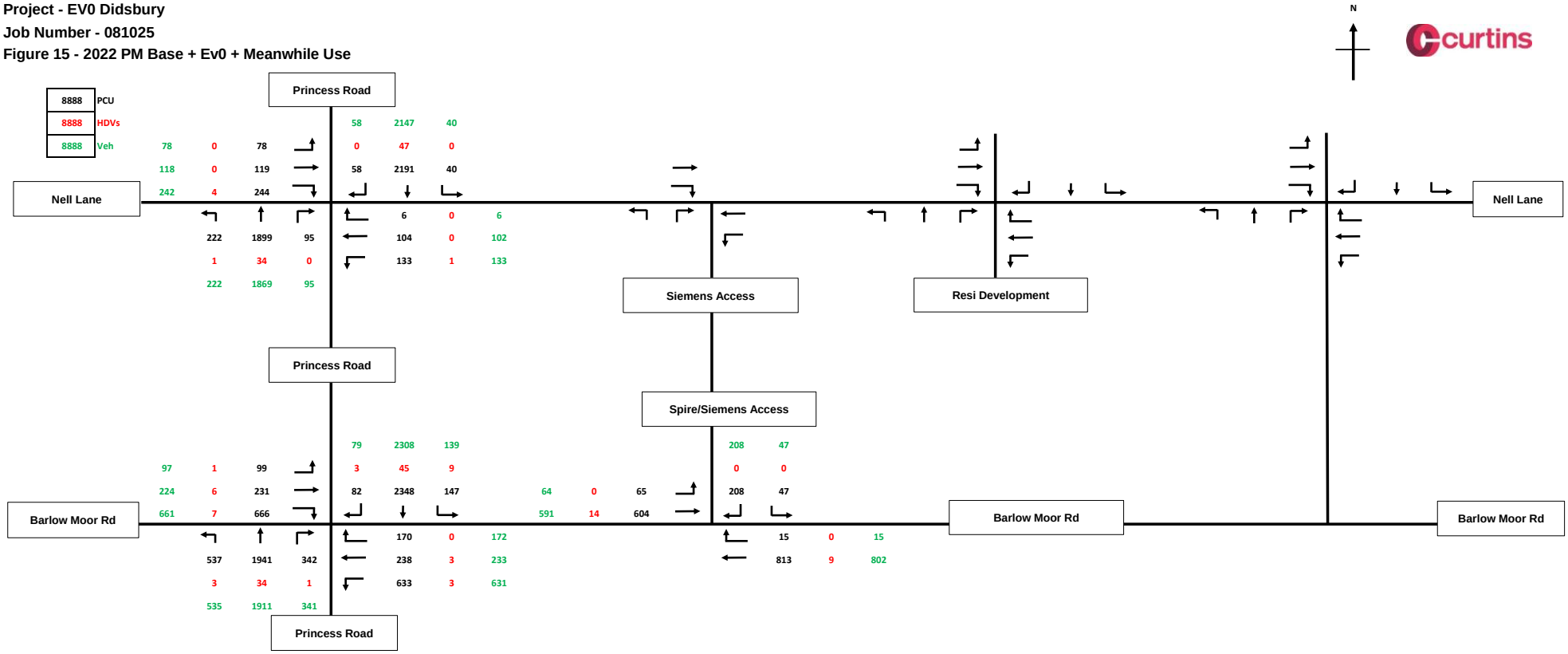
Project - EV0 Didsbury
Job Number - 081025
Figure 13 - 2022 AM Base + Ev0



Project - EV0 Didsbury
Job Number - 081025
Figure 14 - 2022 AM Base + Ev0 + Meanwhile Use



Project - EV0 Didsbury
Job Number - 081025
Figure 15 - 2022 PM Base + Ev0 + Meanwhile Use



Appendix E – TRICS Output

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)
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Population : All usual residents aged 16 and over in employment the week before the census
Units : Persons
Date : 2011
place of work : E02001083 : Manchester 039 (2011 super output area - middle layer)

usual residence : 2011 su	Work mainly	Undergrounc	Train	Bus, minibus	Taxi	Motorcycle, s	Driving a car	Passenger in	Bicycle	On foot	Other method of travel to	Total
	0	2	42	464	10	10	2451	109	128	318	8	3542
	0.00%	**0.06%**	**1.19%**	**13.10%**	**0.28%**	**0.28%**	**69.20%**	**3.08%**	**3.61%**	**8.98%**	**0.23%**	**0.00%**	**100.00%**

Calculation Reference: AUDIT-148301-220729-0741

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : B - BUSINESS PARK
MULTI-MODAL TOTAL PEOPLE

Selected regions and areas:

02	SOUTH EAST		
	EX	ESSEX	2 days
03	SOUTH WEST		
	DV	DEVON	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
10	WALES		
	CF	CARDIFF	4 days
11	SCOTLAND		
	AD	ABERDEEN CITY	1 days
	FA	FALKIRK	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: 1500 to 15930 (units: sqm)
Range Selected by User: 975 to 20000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 21/11/19

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

Selected survey days:

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

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

Selected survey types:

Manual count	10 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 undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	9

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
Commercial Zone	3
Development 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.

Secondary Filtering selection:

Use Class:

Not Known	10 days

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

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	5 days
15,001 to 20,000	3 days
25,001 to 50,000	1 days

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

Population within 5 miles:

100,001 to 125,000	1 days
125,001 to 250,000	5 days
250,001 to 500,000	4 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	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	10 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	10 days

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

LIST OF SITES relevant to selection parameters

1 AD-02-B-02 BUSINESS PARK ABERDEEN CITY
CRAIGSHAW DRIVE
ABERDEEN
EAST TULLOS IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 7925 sqm
Survey date: THURSDAY 21/11/19 Survey Type: MANUAL

2 CF-02-B-04 BUSINESS PARK CARDIFF
RHYMNEY RIVER BRIDGE RD
CARDIFF

Edge of Town
Development Zone
Total Gross floor area: 5300 sqm
Survey date: FRIDAY 05/05/17 Survey Type: MANUAL

3 CF-02-B-06 BUSINESS PARK CARDIFF
MALTHOUSE AVENUE
CARDIFF
PONTPRENNAU
Edge of Town
No Sub Category
Total Gross floor area: 1642 sqm
Survey date: MONDAY 12/03/18 Survey Type: MANUAL

4 CF-02-B-07 BUSINESS PARK CARDIFF
MALTHOUSE AVENUE
CARDIFF
PONTPRENNAU
Edge of Town
Commercial Zone
Total Gross floor area: 15930 sqm
Survey date: TUESDAY 13/03/18 Survey Type: MANUAL

5 CF-02-B-08 BUSINESS PARK CARDIFF
VANGUARD WAY
CARDIFF
ATLANTIC WHARF
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 14312 sqm
Survey date: MONDAY 14/10/19 Survey Type: MANUAL

6 DV-02-B-01 BUSINESS PARK DEVON
MANATON CLOSE
EXETER
MATFORD BUSINESS PARK
Edge of Town
Commercial Zone
Total Gross floor area: 1500 sqm
Survey date: WEDNESDAY 05/07/17 Survey Type: MANUAL

7 EX-02-B-01 BUSINESS PARK ESSEX
BRUNEL COURT
COLCHESTER
SEVERALLS INDUSTRIAL PK
Edge of Town
Industrial Zone
Total Gross floor area: 2900 sqm
Survey date: FRIDAY 18/05/18 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	EX-02-B-02	BUSINESS PARK		ESSEX
	WYNCOLLS ROAD			
	COLCHESTER			
	SEVERALLS INDUSTRIAL PK			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:		4083 sqm	
	Survey date: FRIDAY		*18/05/18*	*Survey Type: MANUAL*
9	FA-02-B-02	BUSINESS PARK		FALKIRK
	CALLENDAR BOULEVARD			
	FALKIRK			
	CALLENDAR PARK			
	Edge of Town			
	Commercial Zone			
	Total Gross floor area:		16000 sqm	
	Survey date: FRIDAY		*31/05/13*	*Survey Type: MANUAL*
10	LN-02-B-02	BUSINESS PARK		LINCOLNSHIRE
	CARDINAL CLOSE			
	LINCOLN			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:		5000 sqm	
	Survey date: THURSDAY		*25/06/15*	*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/B - BUSINESS PARK
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 1.54

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	10	6913	0.693	10	6913	0.085	10	6913	0.778
08:00 - 09:00	10	6913	1.830	10	6913	0.237	10	6913	2.067
09:00 - 10:00	10	6913	1.084	10	6913	0.417	10	6913	1.501
10:00 - 11:00	10	6913	0.558	10	6913	0.433	10	6913	0.991
11:00 - 12:00	10	6913	0.550	10	6913	0.602	10	6913	1.152
12:00 - 13:00	10	6913	0.684	10	6913	0.975	10	6913	1.659
13:00 - 14:00	10	6913	0.839	10	6913	0.674	10	6913	1.513
14:00 - 15:00	10	6913	0.427	10	6913	0.621	10	6913	1.048
15:00 - 16:00	10	6913	0.369	10	6913	0.691	10	6913	1.060
16:00 - 17:00	10	6913	0.331	10	6913	1.280	10	6913	1.611
17:00 - 18:00	10	6913	0.227	10	6913	1.581	10	6913	1.808
18:00 - 19:00	10	6913	0.155	10	6913	0.479	10	6913	0.634
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			7.747			8.075			15.822

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 F – Parking Accumulation Assessment

TRICS 7.7.2
Trip Rate P Gross floor area 8,798 m² D1 Only
87.98

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
Calculation Factor: 100 sqm
Count Type: TOTAL PEOPLE

	ARRIVALS			DEPARTURES			TOTALS		
Time Rangı	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									
07:00-08:0	10	6913	0.693	10	6913	0.085	10	6913	0.778
08:00-09:0	10	6913	1.83	10	6913	0.237	10	6913	2.067
09:00-10:0	10	6913	1.084	10	6913	0.417	10	6913	1.501
10:00-11:0	10	6913	0.558	10	6913	0.433	10	6913	0.991
11:00-12:0	10	6913	0.55	10	6913	0.602	10	6913	1.152
12:00-13:0	10	6913	0.684	10	6913	0.975	10	6913	1.659
13:00-14:0	10	6913	0.839	10	6913	0.674	10	6913	1.513
14:00-15:0	10	6913	0.427	10	6913	0.621	10	6913	1.048
15:00-16:0	10	6913	0.369	10	6913	0.691	10	6913	1.06
16:00-17:0	10	6913	0.331	10	6913	1.28	10	6913	1.611
17:00-18:0	10	6913	0.227	10	6913	1.581	10	6913	1.808
18:00-19:0	10	6913	0.155	10	6913	0.479	10	6913	0.634
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			7.747			8.075			15.822

Building D1

	Total People			Vehicular Trip Rate Based on Modal Split			
	Arr	Dep	Tot	Arr	Dep	Tot	Accumulation
06:00-07:00							20
07:00-08:0	61	7	68	42	5	47	57
08:00-09:0	161	21	182	111	14	126	154
09:00-10:0	95	37	132	66	25	91	195
10:00-11:0	49	38	87	34	26	60	202
11:00-12:0	48	53	101	33	37	70	199
12:00-13:0	60	86	146	42	59	101	181
13:00-14:0	74	59	133	51	41	92	191
14:00-15:0	38	55	92	26	38	64	180
15:00-16:0	32	61	93	22	42	65	160
16:00-17:0	29	113	142	20	78	98	102
17:00-18:0	20	139	159	14	96	110	20
18:00-19:0	14	42	56	9	29	39	0

297 max parking for D1 and meanwhile use
1.47 accumulation uplift factor

164	21	185	factored AM peak flows
20	141	162	factored PM peak flows

Appendix G – Junction Capacity Assessment Results

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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Filename: Southern Site Access - Barlow Moor Road (Existing Layout - For Planning).j9
Path: \\mafs02\Projects\081001 - 082000\081025 - EV0 Didsbury\Q3-Design\3A-Calculations\TP\Capacity Assessments
Report generation date: 28/06/2022 09:25:51

»2022 Survey, AM
»2022 Survey, PM
»2022 Base, AM
»2022 Base, PM
»2022 Base + D1, AM
»2022 Base + D1, PM
»2022 Base + D1 + Meanwhile Use, AM
»2022 Base + D1 + Meanwhile Use, PM

Summary of junction performance

	AM						PM					
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity
	2022 Survey											
Stream B-C	0.0	8.93	0.02	A	0.66	32 % [Stream B-A]	0.1	9.91	0.09	A	1.35	22 % [Stream B-A]
Stream B-A	0.2	17.62	0.12	C			0.5	20.24	0.31	C		
Stream C-AB	0.4	4.23	0.15	A			0.1	4.16	0.06	A		
	2022 Base											
Stream B-C	0.0	8.93	0.02	A	0.66	32 % [Stream B-A]	0.1	9.92	0.09	A	1.35	22 % [Stream B-A]
Stream B-A	0.2	17.62	0.12	C			0.5	20.30	0.31	C		
Stream C-AB	0.4	4.23	0.15	A			0.1	4.15	0.06	A		
	2022 Base + D1											
Stream B-C	0.0	9.41	0.02	A	0.93	23 % [Stream B-A]	0.2	17.59	0.17	C	4.75	-4 % [Stream B-A]
Stream B-A	0.3	20.08	0.19	C			2.1	42.52	0.67	E		
Stream C-AB	0.8	4.39	0.21	A			0.1	4.17	0.06	A		
	2022 Base + D1 + Meanwhile Use											
Stream B-C	0.0	9.66	0.02	A	1.08	18 % [Stream B-A]	0.6	45.88	0.38	E	10.70	-13 % [Stream B-A]
Stream B-A	0.3	21.52	0.22	C			4.6	78.63	0.84	F		
Stream C-AB	1.1	4.48	0.24	A			0.1	4.18	0.07	A		

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	28/08/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CURTINS\thorley_m
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	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	2022 Survey	AM	ONE HOUR	08:00	09:30	15	✓
D2	2022 Survey	PM	ONE HOUR	17:00	18:30	15	✓
D3	2022 Base	AM	ONE HOUR	08:00	09:30	15	✓
D4	2022 Base	PM	ONE HOUR	17:00	18:30	15	✓
D5	2022 Base + D1	AM	ONE HOUR	08:00	09:30	15	✓
D6	2022 Base + D1	PM	ONE HOUR	17:00	18:30	15	✓
D7	2022 Base + D1 + Meanwhile Use	AM	ONE HOUR	08:00	09:30	15	✓
D8	2022 Base + D1 + Meanwhile Use	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

2022 Survey, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Southern Site Access - Barlow Moor Road	T-Junction	Two-way	0.66	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	Stream B-A

Arms

Arms

Arm	Name	Description	Arm type
A	Barlow Moor Road (W)		Major
B	Southern Site Access		Minor
C	Barlow Moor Road (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Barlow Moor Road (E)	9.00			160.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Southern Site Access	One lane plus flare	10.00	6.50	4.50	3.50	3.50	✓	1.00	40	44

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	570	0.090	0.228	0.144	0.326
1	B-C	616	0.082	0.208	-	-
1	C-B	667	0.225	0.225	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Survey	AM	ONE HOUR	08:00	09:30	15	✓

Default vehicle mix	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 (PCU/hr)	Scaling Factor (%)
A - Barlow Moor Road (W)		ONE HOUR	✓	723	100.000
B - Southern Site Access		ONE HOUR	✓	36	100.000
C - Barlow Moor Road (E)		ONE HOUR	✓	905	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	0	116	607
	B - Southern Site Access	29	0	7
	C - Barlow Moor Road (E)	875	30	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	10	10	10
	B - Southern Site Access	10	10	10
	C - Barlow Moor Road (E)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	8.93	0.0	A	6	10
B-A	0.12	17.62	0.2	C	27	40
C-AB	0.15	4.23	0.4	A	114	170
C-A					717	1075
A-B					106	160
A-C					557	835

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	5	1	506	0.010	5	0.0	0.0	7.904	A
B-A	22	5	356	0.061	22	0.0	0.1	11.835	B
C-AB	66	16	1004	0.065	65	0.0	0.1	4.218	A
C-A	616	154			616				
A-B	87	22			87				
A-C	457	114			457				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	6	2	484	0.013	6	0.0	0.0	8.294	A
B-A	26	7	314	0.083	26	0.1	0.1	13.736	B
C-AB	100	25	1080	0.092	99	0.1	0.2	4.041	A
C-A	714	178			714				
A-B	104	26			104				
A-C	546	136			546				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	8	2	451	0.017	8	0.0	0.0	8.926	A
B-A	32	8	257	0.124	32	0.1	0.2	17.579	C
C-AB	174	44	1191	0.146	173	0.2	0.4	3.897	A
C-A	822	206			822				
A-B	128	32			128				
A-C	668	167			668				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	8	2	451	0.017	8	0.0	0.0	8.930	A
B-A	32	8	257	0.124	32	0.2	0.2	17.623	C
C-AB	175	44	1191	0.147	175	0.4	0.4	3.904	A
C-A	821	205			821				
A-B	128	32			128				
A-C	668	167			668				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	6	2	483	0.013	6	0.0	0.0	8.300	A
B-A	26	7	314	0.083	26	0.2	0.1	13.769	B
C-AB	100	25	1081	0.093	101	0.4	0.2	4.049	A
C-A	713	178			713				
A-B	104	26			104				
A-C	546	136			546				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	5	1	506	0.010	5	0.0	0.0	7.908	A
B-A	22	5	356	0.061	22	0.1	0.1	11.866	B
C-AB	66	17	1004	0.066	66	0.2	0.1	4.226	A
C-A	615	154			615				
A-B	87	22			87				
A-C	457	114			457				

2022 Survey, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Southern Site Access - Barlow Moor Road	T-Junction	Two-way	1.35	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022 Survey	PM	ONE HOUR	17:00	18:30	15	✓

Default vehicle mix	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 (PCU/hr)	Scaling Factor (%)
A - Barlow Moor Road (W)		ONE HOUR	✓	649	100.000
B - Southern Site Access		ONE HOUR	✓	114	100.000
C - Barlow Moor Road (E)		ONE HOUR	✓	824	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	0	46	603
	B - Southern Site Access	79	0	35
	C - Barlow Moor Road (E)	811	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	10	10	10
	B - Southern Site Access	10	10	10
	C - Barlow Moor Road (E)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.09	9.91	0.1	A	32	48
B-A	0.31	20.24	0.5	C	72	109
C-AB	0.06	4.16	0.1	A	43	65
C-A					713	1069
A-B					42	63
A-C					553	830

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	26	7	514	0.051	26	0.0	0.1	8.112	A
B-A	59	15	375	0.159	59	0.0	0.2	12.489	B
C-AB	26	7	979	0.027	26	0.0	0.0	4.157	A
C-A	594	149			594				
A-B	35	9			35				
A-C	454	113			454				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	31	8	485	0.065	31	0.1	0.1	8.723	A
B-A	71	18	336	0.211	71	0.2	0.3	14.890	B
C-AB	39	10	1048	0.037	38	0.0	0.1	3.923	A
C-A	702	176			702				
A-B	41	10			41				
A-C	542	136			542				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	39	10	439	0.088	38	0.1	0.1	9.880	A
B-A	87	22	282	0.308	86	0.3	0.5	20.099	C
C-AB	65	16	1148	0.056	64	0.1	0.1	3.654	A
C-A	843	211			843				
A-B	51	13			51				
A-C	664	166			664				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	39	10	438	0.088	39	0.1	0.1	9.906	A
B-A	87	22	283	0.308	87	0.5	0.5	20.237	C
C-AB	65	16	1148	0.056	65	0.1	0.1	3.654	A
C-A	842	211			842				
A-B	51	13			51				
A-C	664	166			664				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	31	8	484	0.065	32	0.1	0.1	8.748	A
B-A	71	18	336	0.211	72	0.5	0.3	15.002	C
C-AB	39	10	1048	0.037	39	0.1	0.1	3.924	A
C-A	702	176			702				
A-B	41	10			41				
A-C	542	136			542				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	26	7	513	0.051	26	0.1	0.1	8.136	A
B-A	59	15	375	0.159	60	0.3	0.2	12.574	B
C-AB	26	7	979	0.027	26	0.1	0.0	4.159	A
C-A	594	149			594				
A-B	35	9			35				
A-C	454	113			454				

2022 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Southern Site Access - Barlow Moor Road	T-Junction	Two-way	0.66	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2022 Base	AM	ONE HOUR	08:00	09:30	15	✓

Default vehicle mix	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 (PCU/hr)	Scaling Factor (%)
A - Barlow Moor Road (W)		ONE HOUR	✓	723	100.000
B - Southern Site Access		ONE HOUR	✓	36	100.000
C - Barlow Moor Road (E)		ONE HOUR	✓	905	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	0	116	607
	B - Southern Site Access	29	0	7
	C - Barlow Moor Road (E)	875	30	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	10	10	10
	B - Southern Site Access	10	10	10
	C - Barlow Moor Road (E)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	8.93	0.0	A	6	10
B-A	0.12	17.62	0.2	C	27	40
C-AB	0.15	4.23	0.4	A	114	170
C-A					717	1075
A-B					106	160
A-C					557	835

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	5	1	506	0.010	5	0.0	0.0	7.904	A
B-A	22	5	356	0.061	22	0.0	0.1	11.835	B
C-AB	66	16	1004	0.065	65	0.0	0.1	4.218	A
C-A	616	154			616				
A-B	87	22			87				
A-C	457	114			457				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	6	2	484	0.013	6	0.0	0.0	8.294	A
B-A	26	7	314	0.083	26	0.1	0.1	13.736	B
C-AB	100	25	1080	0.092	99	0.1	0.2	4.041	A
C-A	714	178			714				
A-B	104	26			104				
A-C	546	136			546				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	8	2	451	0.017	8	0.0	0.0	8.926	A
B-A	32	8	257	0.124	32	0.1	0.2	17.579	C
C-AB	174	44	1191	0.146	173	0.2	0.4	3.897	A
C-A	822	206			822				
A-B	128	32			128				
A-C	668	167			668				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	8	2	451	0.017	8	0.0	0.0	8.930	A
B-A	32	8	257	0.124	32	0.2	0.2	17.623	C
C-AB	175	44	1191	0.147	175	0.4	0.4	3.904	A
C-A	821	205			821				
A-B	128	32			128				
A-C	668	167			668				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	6	2	483	0.013	6	0.0	0.0	8.300	A
B-A	26	7	314	0.083	26	0.2	0.1	13.769	B
C-AB	100	25	1081	0.093	101	0.4	0.2	4.049	A
C-A	713	178			713				
A-B	104	26			104				
A-C	546	136			546				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	5	1	506	0.010	5	0.0	0.0	7.908	A
B-A	22	5	356	0.061	22	0.1	0.1	11.866	B
C-AB	66	17	1004	0.066	66	0.2	0.1	4.226	A
C-A	615	154			615				
A-B	87	22			87				
A-C	457	114			457				

2022 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Southern Site Access - Barlow Moor Road	T-Junction	Two-way	1.35	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2022 Base	PM	ONE HOUR	17:00	18:30	15	✓

Default vehicle mix	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 (PCU/hr)	Scaling Factor (%)
A - Barlow Moor Road (W)		ONE HOUR	✓	650	100.000
B - Southern Site Access		ONE HOUR	✓	114	100.000
C - Barlow Moor Road (E)		ONE HOUR	✓	826	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	0	46	604
	B - Southern Site Access	79	0	35
	C - Barlow Moor Road (E)	813	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	10	10	10
	B - Southern Site Access	10	10	10
	C - Barlow Moor Road (E)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.09	9.92	0.1	A	32	48
B-A	0.31	20.30	0.5	C	72	109
C-AB	0.06	4.15	0.1	A	43	65
C-A					715	1072
A-B					42	63
A-C					554	831

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	26	7	514	0.051	26	0.0	0.1	8.115	A
B-A	59	15	375	0.159	59	0.0	0.2	12.505	B
C-AB	26	7	979	0.027	26	0.0	0.0	4.153	A
C-A	596	149			596				
A-B	35	9			35				
A-C	455	114			455				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	31	8	485	0.065	31	0.1	0.1	8.727	A
B-A	71	18	336	0.211	71	0.2	0.3	14.916	B
C-AB	39	10	1049	0.037	39	0.0	0.1	3.919	A
C-A	704	176			704				
A-B	41	10			41				
A-C	543	136			543				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	39	10	439	0.088	38	0.1	0.1	9.889	A
B-A	87	22	282	0.309	86	0.3	0.5	20.158	C
C-AB	65	16	1150	0.056	65	0.1	0.1	3.650	A
C-A	845	211			845				
A-B	51	13			51				
A-C	665	166			665				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	39	10	438	0.088	39	0.1	0.1	9.916	A
B-A	87	22	282	0.308	87	0.5	0.5	20.296	C
C-AB	65	16	1150	0.057	65	0.1	0.1	3.650	A
C-A	844	211			844				
A-B	51	13			51				
A-C	665	166			665				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	31	8	484	0.065	32	0.1	0.1	8.752	A
B-A	71	18	336	0.211	72	0.5	0.3	15.029	C
C-AB	39	10	1049	0.037	39	0.1	0.1	3.920	A
C-A	704	176			704				
A-B	41	10			41				
A-C	543	136			543				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	26	7	513	0.051	26	0.1	0.1	8.139	A
B-A	59	15	375	0.159	60	0.3	0.2	12.590	B
C-AB	26	7	980	0.027	26	0.1	0.0	4.154	A
C-A	596	149			596				
A-B	35	9			35				
A-C	455	114			455				

2022 Base + D1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Southern Site Access - Barlow Moor Road	T-Junction	Two-way	0.93	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	23	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2022 Base + D1	AM	ONE HOUR	08:00	09:30	15	✓

Default vehicle mix	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 (PCU/hr)	Scaling Factor (%)
A - Barlow Moor Road (W)		ONE HOUR	✓	824	100.000
B - Southern Site Access		ONE HOUR	✓	50	100.000
C - Barlow Moor Road (E)		ONE HOUR	✓	915	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	0	217	607
	B - Southern Site Access	42	0	8
	C - Barlow Moor Road (E)	875	40	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	10	10	10
	B - Southern Site Access	10	10	10
	C - Barlow Moor Road (E)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	9.41	0.0	A	7	11
B-A	0.19	20.08	0.3	C	39	58
C-AB	0.21	4.39	0.8	A	157	236
C-A					682	1024
A-B					199	299
A-C					557	835

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	6	2	493	0.012	6	0.0	0.0	8.124	A
B-A	32	8	348	0.091	31	0.0	0.1	12.502	B
C-AB	89	22	993	0.090	89	0.0	0.2	4.378	A
C-A	599	150			599				
A-B	163	41			163				
A-C	457	114			457				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	7	2	468	0.015	7	0.0	0.0	8.592	A
B-A	38	9	304	0.124	38	0.1	0.2	14.857	B
C-AB	137	34	1069	0.128	137	0.2	0.3	4.253	A
C-A	685	171			685				
A-B	195	49			195				
A-C	546	136			546				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	9	2	430	0.020	9	0.0	0.0	9.398	A
B-A	46	12	244	0.190	46	0.2	0.3	19.978	C
C-AB	243	61	1179	0.206	241	0.3	0.8	4.231	A
C-A	764	191			764				
A-B	239	60			239				
A-C	668	167			668				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	9	2	430	0.020	9	0.0	0.0	9.406	A
B-A	46	12	243	0.190	46	0.3	0.3	20.081	C
C-AB	244	61	1180	0.207	244	0.8	0.8	4.250	A
C-A	763	191			763				
A-B	239	60			239				
A-C	668	167			668				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	7	2	468	0.015	7	0.0	0.0	8.602	A
B-A	38	9	304	0.124	38	0.3	0.2	14.945	B
C-AB	138	35	1070	0.129	140	0.8	0.4	4.272	A
C-A	684	171			684				
A-B	195	49			195				
A-C	546	136			546				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	6	2	493	0.012	6	0.0	0.0	8.134	A
B-A	32	8	347	0.091	32	0.2	0.1	12.559	B
C-AB	90	23	994	0.091	91	0.4	0.2	4.391	A
C-A	599	150			599				
A-B	163	41			163				
A-C	457	114			457				

2022 Base + D1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Southern Site Access - Barlow Moor Road	T-Junction	Two-way	4.75	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-4	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2022 Base + D1	PM	ONE HOUR	17:00	18:30	15	✓

Default vehicle mix	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 (PCU/hr)	Scaling Factor (%)
A - Barlow Moor Road (W)		ONE HOUR	✓	663	100.000
B - Southern Site Access		ONE HOUR	✓	210	100.000
C - Barlow Moor Road (E)		ONE HOUR	✓	827	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	0	59	604
	B - Southern Site Access	167	0	43
	C - Barlow Moor Road (E)	813	14	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	10	10	10
	B - Southern Site Access	10	10	10
	C - Barlow Moor Road (E)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.17	17.59	0.2	C	39	59
B-A	0.67	42.52	2.1	E	153	230
C-AB	0.06	4.17	0.1	A	47	70
C-A					712	1068
A-B					54	81
A-C					554	831

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	32	8	457	0.071	32	0.0	0.1	9.327	A
B-A	126	31	370	0.340	124	0.0	0.6	15.936	C
C-AB	28	7	978	0.029	28	0.0	0.0	4.168	A
C-A	594	149			594				
A-B	44	11			44				
A-C	455	114			455				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	39	10	401	0.096	39	0.1	0.1	10.918	B
B-A	150	38	331	0.454	149	0.6	0.9	21.617	C
C-AB	42	10	1047	0.040	42	0.0	0.1	3.937	A
C-A	702	175			702				
A-B	53	13			53				
A-C	543	136			543				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	47	12	281	0.168	47	0.1	0.2	16.859	C
B-A	184	46	276	0.667	180	0.9	2.0	39.557	E
C-AB	70	18	1148	0.061	70	0.1	0.1	3.673	A
C-A	840	210			840				
A-B	65	16			65				
A-C	665	166			665				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	47	12	272	0.174	47	0.2	0.2	17.594	C
B-A	184	46	275	0.668	183	2.0	2.1	42.519	E
C-AB	70	18	1148	0.061	70	0.1	0.1	3.677	A
C-A	840	210			840				
A-B	65	16			65				
A-C	665	166			665				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	39	10	394	0.098	39	0.2	0.1	11.176	B
B-A	150	38	331	0.454	155	2.1	1.0	23.020	C
C-AB	42	10	1048	0.040	42	0.1	0.1	3.940	A
C-A	702	175			702				
A-B	53	13			53				
A-C	543	136			543				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	32	8	453	0.071	33	0.1	0.1	9.410	A
B-A	126	31	370	0.340	127	1.0	0.6	16.417	C
C-AB	28	7	978	0.029	28	0.1	0.0	4.169	A
C-A	594	149			594				
A-B	44	11			44				
A-C	455	114			455				

2022 Base + D1 + Meanwhile Use, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Southern Site Access - Barlow Moor Road	T-Junction	Two-way	1.08	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	18	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2022 Base + D1 + Meanwhile Use	AM	ONE HOUR	08:00	09:30	15	✓

Default vehicle mix	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 (PCU/hr)	Scaling Factor (%)
A - Barlow Moor Road (W)		ONE HOUR	✓	871	100.000
B - Southern Site Access		ONE HOUR	✓	57	100.000
C - Barlow Moor Road (E)		ONE HOUR	✓	920	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	0	264	607
	B - Southern Site Access	48	0	9
	C - Barlow Moor Road (E)	875	45	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	10	10	10
	B - Southern Site Access	10	10	10
	C - Barlow Moor Road (E)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	9.66	0.0	A	8	12
B-A	0.22	21.52	0.3	C	44	66
C-AB	0.24	4.48	1.1	A	180	270
C-A					664	996
A-B					242	363
A-C					557	835

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	7	2	488	0.014	7	0.0	0.0	8.221	A
B-A	36	9	343	0.105	36	0.0	0.1	12.857	B
C-AB	102	25	988	0.103	101	0.0	0.2	4.463	A
C-A	591	148			591				
A-B	199	50			199				
A-C	457	114			457				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	8	2	462	0.018	8	0.0	0.0	8.733	A
B-A	43	11	299	0.145	43	0.1	0.2	15.475	C
C-AB	157	39	1063	0.147	156	0.2	0.4	4.368	A
C-A	670	168			670				
A-B	237	59			237				
A-C	546	136			546				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	10	2	420	0.024	10	0.0	0.0	9.649	A
B-A	53	13	237	0.223	52	0.2	0.3	21.369	C
C-AB	280	70	1174	0.238	277	0.4	1.0	4.429	A
C-A	733	183			733				
A-B	291	73			291				
A-C	668	167			668				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	10	2	420	0.024	10	0.0	0.0	9.660	A
B-A	53	13	237	0.223	53	0.3	0.3	21.519	C
C-AB	281	70	1176	0.239	281	1.0	1.1	4.457	A
C-A	731	183			731				
A-B	291	73			291				
A-C	668	167			668				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	8	2	461	0.018	8	0.0	0.0	8.744	A
B-A	43	11	298	0.145	44	0.3	0.2	15.592	C
C-AB	158	40	1065	0.148	161	1.1	0.5	4.398	A
C-A	669	167			669				
A-B	237	59			237				
A-C	546	136			546				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	7	2	488	0.014	7	0.0	0.0	8.233	A
B-A	36	9	343	0.105	36	0.2	0.1	12.933	B
C-AB	103	26	989	0.104	103	0.5	0.3	4.482	A
C-A	590	147			590				
A-B	199	50			199				
A-C	457	114			457				

2022 Base + D1 + Meanwhile Use, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Southern Site Access - Barlow Moor Road	T-Junction	Two-way	10.70	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	Stream B-A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2022 Base + D1 + Meanwhile Use	PM	ONE HOUR	17:00	18:30	15	✓

Default vehicle mix	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 (PCU/hr)	Scaling Factor (%)
A - Barlow Moor Road (W)		ONE HOUR	✓	669	100.000
B - Southern Site Access		ONE HOUR	✓	255	100.000
C - Barlow Moor Road (E)		ONE HOUR	✓	828	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	0	65	604
	B - Southern Site Access	208	0	47
	C - Barlow Moor Road (E)	813	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Barlow Moor Road (W)	B - Southern Site Access	C - Barlow Moor Road (E)
From	A - Barlow Moor Road (W)	10	10	10
	B - Southern Site Access	10	10	10
	C - Barlow Moor Road (E)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.38	45.88	0.6	E	43	65
B-A	0.84	78.63	4.6	F	191	286
C-AB	0.07	4.18	0.1	A	50	75
C-A					710	1064
A-B					60	89
A-C					554	831

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	35	9	428	0.083	35	0.0	0.1	10.058	B
B-A	157	39	369	0.424	153	0.0	0.8	18.087	C
C-AB	30	8	977	0.031	30	0.0	0.0	4.180	A
C-A	593	148			593				
A-B	49	12			49				
A-C	455	114			455				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	42	11	350	0.121	42	0.1	0.1	12.852	B
B-A	187	47	330	0.567	185	0.8	1.4	26.888	D
C-AB	45	11	1047	0.043	45	0.0	0.1	3.952	A
C-A	699	175			699				
A-B	58	15			58				
A-C	543	136			543				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	52	13	166	0.311	50	0.1	0.5	33.774	D
B-A	229	57	273	0.839	218	1.4	4.0	63.119	F
C-AB	75	19	1147	0.066	75	0.1	0.1	3.694	A
C-A	836	209			836				
A-B	72	18			72				
A-C	665	166			665				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	52	13	137	0.379	51	0.5	0.6	45.878	E
B-A	229	57	272	0.840	227	4.0	4.6	78.626	F
C-AB	76	19	1147	0.066	76	0.1	0.1	3.697	A
C-A	836	209			836				
A-B	72	18			72				
A-C	665	166			665				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	42	11	326	0.130	44	0.6	0.2	14.134	B
B-A	187	47	329	0.568	199	4.6	1.5	32.833	D
C-AB	45	11	1047	0.043	45	0.1	0.1	3.954	A
C-A	699	175			699				
A-B	58	15			58				
A-C	543	136			543				

18:15 - 18:30

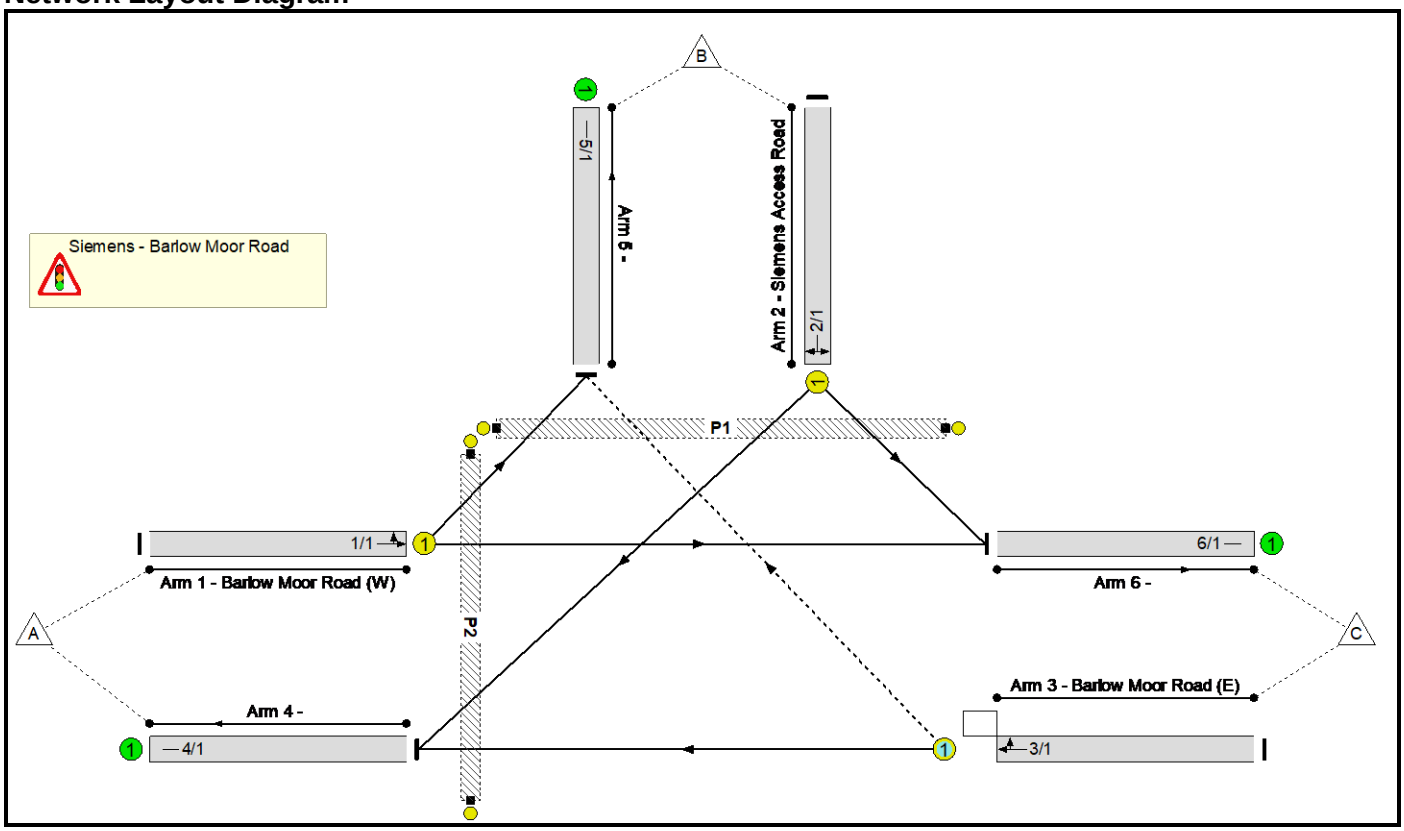
Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-C	35	9	422	0.084	36	0.2	0.1	10.258	B
B-A	157	39	369	0.424	159	1.5	0.8	19.099	C
C-AB	30	8	977	0.031	30	0.1	0.0	4.181	A
C-A	593	148			593				
A-B	49	12			49				
A-C	455	114			455				

Full Input Data And Results

User and Project Details

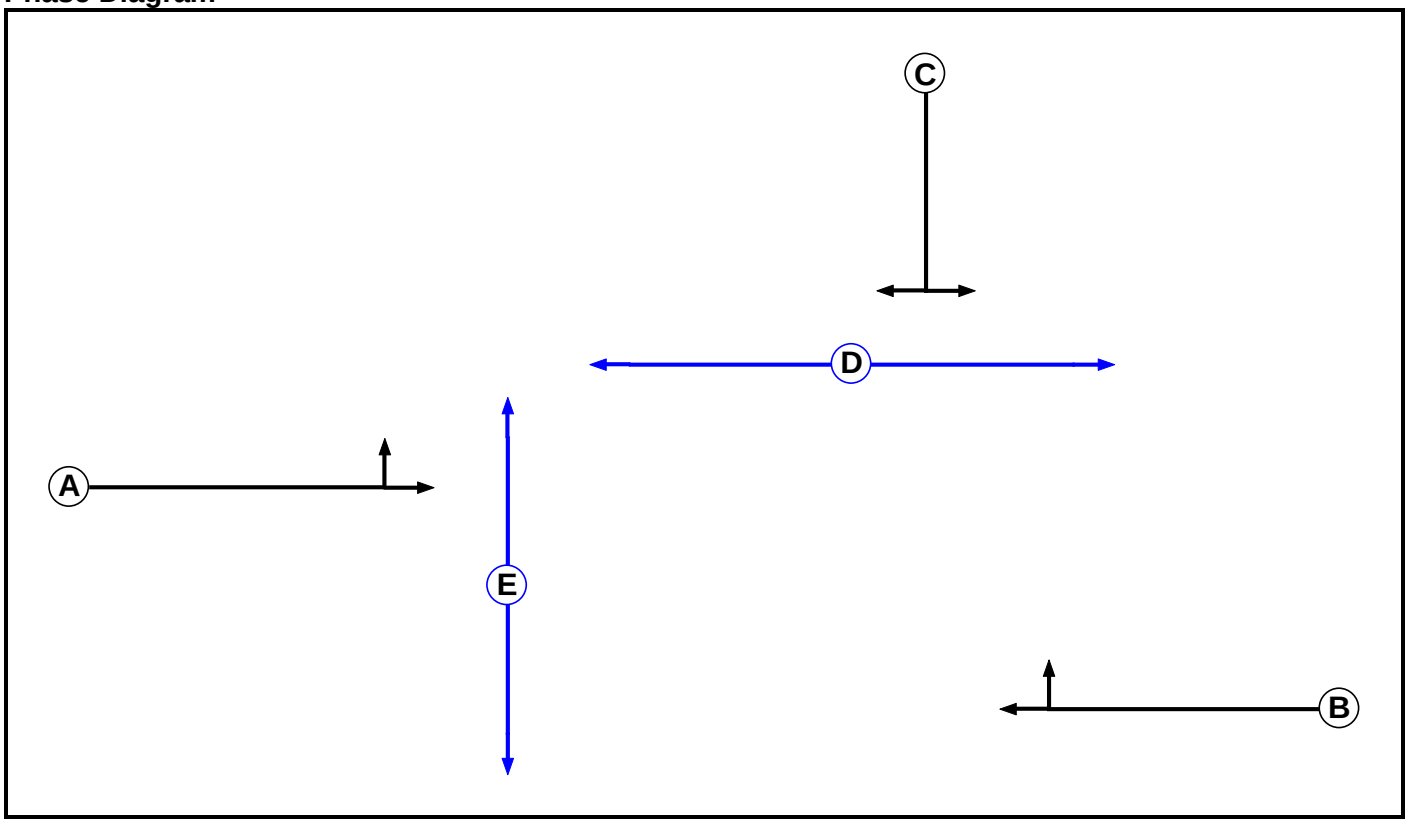
Project:	
Title:	
Location:	
Additional detail:	
File name:	Proposed Siemens - Barlow Moor Road Access (For Planning August 2022).lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Pedestrian		10	10
E	Pedestrian		11	11

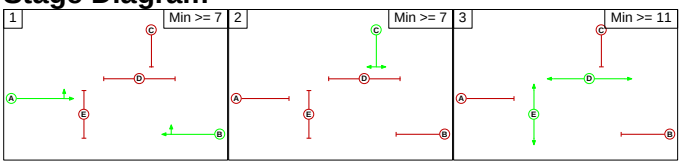
Phase Intergreens Matrix

		Starting Phase				
		A	B	C	D	E
Terminating Phase	A		-	8	9	6
	B	-		5	11	11
	C	8	5		6	8
	D	10	10	10		-
	E	12	12	12	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

		To Stage		
		1	2	3
From Stage	1		8	11
	2	8		8
	3	12	12	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Siemens - Barlow Moor Road											
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)**
3/1 (Barlow Moor Road (E))	5/1 (Right)	1439	0	1/1	1.09	All	2.00	2.00	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: Siemens - Barlow Moor 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)
1/1 (Barlow Moor Road (W))	U	A	2	3	60.0	Geom	-	3.35	0.00	Y	Arm 5 Left	13.00
											Arm 6 Ahead	Inf
2/1 (Siemens Access Road)	U	C	2	3	60.0	Geom	-	4.20	0.00	Y	Arm 4 Right	12.00
											Arm 6 Left	11.00
3/1 (Barlow Moor Road (E))	O	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Ahead	Inf
											Arm 5 Right	Inf
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Base'	08:00	09:00	01:00	
2: 'PM Base'	17:00	18:00	01:00	
3: 'AM Base + D1'	08:00	09:00	01:00	
4: 'PM Base + D1'	17:00	18:00	01:00	
5: 'AM Base + D1 + Meanwhile Use'	08:00	09:00	01:00	
6: 'PM Base + D1 + Meanwhile Use'	17:00	18:00	01:00	

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

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	607	116	723
	B	29	0	7	36
	C	875	30	0	905
	Tot.	904	637	123	1664

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: AM Base
Junction: Siemens - Barlow Moor Road	
1/1	723
2/1	36
3/1	905
4/1	904
5/1	637
6/1	123

Lane Saturation Flows

Junction: Siemens - Barlow Moor Road								
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 (Barlow Moor Road (W))	3.35	0.00	Y	Arm 5 Left	13.00	84.0 %	1778	1778
				Arm 6 Ahead	Inf	16.0 %		
2/1 (Siemens Access Road)	4.20	0.00	Y	Arm 4 Right	12.00	80.6 %	1805	1805
				Arm 6 Left	11.00	19.4 %		
3/1 (Barlow Moor Road (E))	3.50	0.00	Y	Arm 4 Ahead	Inf	96.7 %	1965	1965
				Arm 5 Right	Inf	3.3 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	46	603	649
	B	79	0	35	114
	C	811	13	0	824
	Tot.	890	59	638	1587

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: PM Base
Junction: Siemens - Barlow Moor Road	
1/1	649
2/1	114
3/1	824
4/1	890
5/1	59
6/1	638

Lane Saturation Flows

Junction: Siemens - Barlow Moor Road								
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 (Barlow Moor Road (W))	3.35	0.00	Y	Arm 5 Left	13.00	7.1 %	1934	1934
				Arm 6 Ahead	Inf	92.9 %		
2/1 (Siemens Access Road)	4.20	0.00	Y	Arm 4 Right	12.00	69.3 %	1803	1803
				Arm 6 Left	11.00	30.7 %		
3/1 (Barlow Moor Road (E))	3.50	0.00	Y	Arm 4 Ahead	Inf	98.4 %	1965	1965
				Arm 5 Right	Inf	1.6 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'AM Base + D1' (FG3: 'AM Base + D1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	217	607	824
	B	42	0	8	50
	C	875	40	0	915
	Tot.	917	257	615	1789

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: AM Base + D1
Junction: Siemens - Barlow Moor Road	
1/1	824
2/1	50
3/1	915
4/1	917
5/1	257
6/1	615

Lane Saturation Flows

Junction: Siemens - Barlow Moor Road								
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 (Barlow Moor Road (W))	3.35	0.00	Y	Arm 5 Left	13.00	26.3 %	1892	1892
				Arm 6 Ahead	Inf	73.7 %		
2/1 (Siemens Access Road)	4.20	0.00	Y	Arm 4 Right	12.00	84.0 %	1806	1806
				Arm 6 Left	11.00	16.0 %		
3/1 (Barlow Moor Road (E))	3.50	0.00	Y	Arm 4 Ahead	Inf	95.6 %	1965	1965
				Arm 5 Right	Inf	4.4 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'PM Base + D1' (FG4: 'PM Base + D1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	59	604	663
	B	167	0	43	210
	C	813	14	0	827
	Tot.	980	73	647	1700

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: PM Base + D1
Junction: Siemens - Barlow Moor Road	
1/1	663
2/1	210
3/1	827
4/1	980
5/1	73
6/1	647

Lane Saturation Flows

Junction: Siemens - Barlow Moor Road								
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 (Barlow Moor Road (W))	3.35	0.00	Y	Arm 5 Left	13.00	8.9 %	1930	1930
				Arm 6 Ahead	Inf	91.1 %		
2/1 (Siemens Access Road)	4.20	0.00	Y	Arm 4 Right	12.00	79.5 %	1805	1805
				Arm 6 Left	11.00	20.5 %		
3/1 (Barlow Moor Road (E))	3.50	0.00	Y	Arm 4 Ahead	Inf	98.3 %	1965	1965
				Arm 5 Right	Inf	1.7 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'AM Base + D1 + Meanwhile Use' (FG5: 'AM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	264	607	871
	B	48	0	9	57
	C	875	45	0	920
	Tot.	923	309	616	1848

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: AM Base + D1 + Meanwhile Use
Junction: Siemens - Barlow Moor Road	
1/1	871
2/1	57
3/1	920
4/1	923
5/1	309
6/1	616

Lane Saturation Flows

Junction: Siemens - Barlow Moor Road								
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 (Barlow Moor Road (W))	3.35	0.00	Y	Arm 5 Left	13.00	30.3 %	1884	1884
				Arm 6 Ahead	Inf	69.7 %		
2/1 (Siemens Access Road)	4.20	0.00	Y	Arm 4 Right	12.00	84.2 %	1806	1806
				Arm 6 Left	11.00	15.8 %		
3/1 (Barlow Moor Road (E))	3.50	0.00	Y	Arm 4 Ahead	Inf	95.1 %	1965	1965
				Arm 5 Right	Inf	4.9 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'PM Base + D1 + Meanwhile Use' (FG6: 'PM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	65	604	669
	B	208	0	47	255
	C	813	15	0	828
	Tot.	1021	80	651	1752

Full Input Data And Results

Traffic Lane Flows

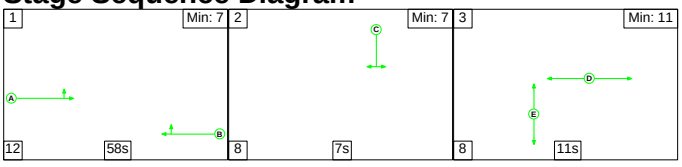
Lane	Scenario 6: PM Base + D1 + Meanwhile Use
Junction: Siemens - Barlow Moor Road	
1/1	669
2/1	255
3/1	828
4/1	1021
5/1	80
6/1	651

Lane Saturation Flows

Junction: Siemens - Barlow Moor Road								
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 (Barlow Moor Road (W))	3.35	0.00	Y	Arm 5 Left	13.00	9.7 %	1928	1928
				Arm 6 Ahead	Inf	90.3 %		
2/1 (Siemens Access Road)	4.20	0.00	Y	Arm 4 Right	12.00	81.6 %	1806	1806
				Arm 6 Left	11.00	18.4 %		
3/1 (Barlow Moor Road (E))	3.50	0.00	Y	Arm 4 Ahead	Inf	98.2 %	1965	1965
				Arm 5 Right	Inf	1.8 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

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

Stage Sequence Diagram

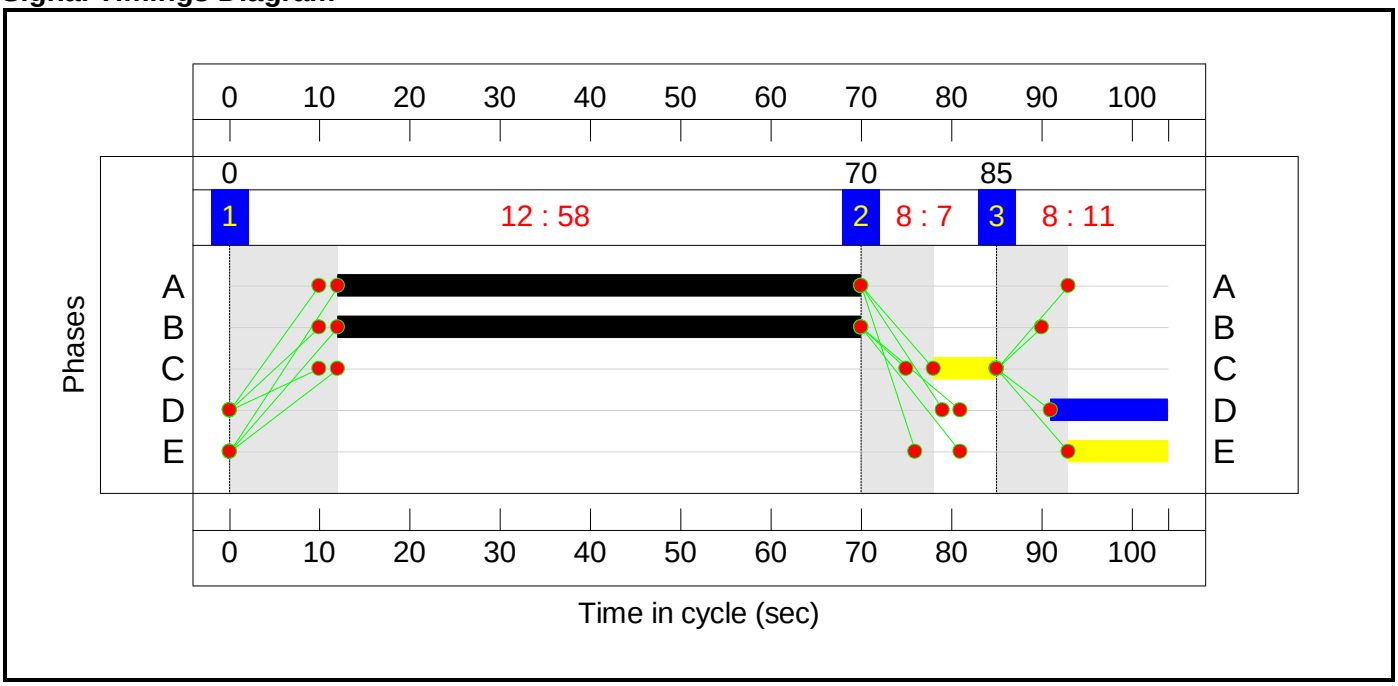


Full Input Data And Results

Stage Timings

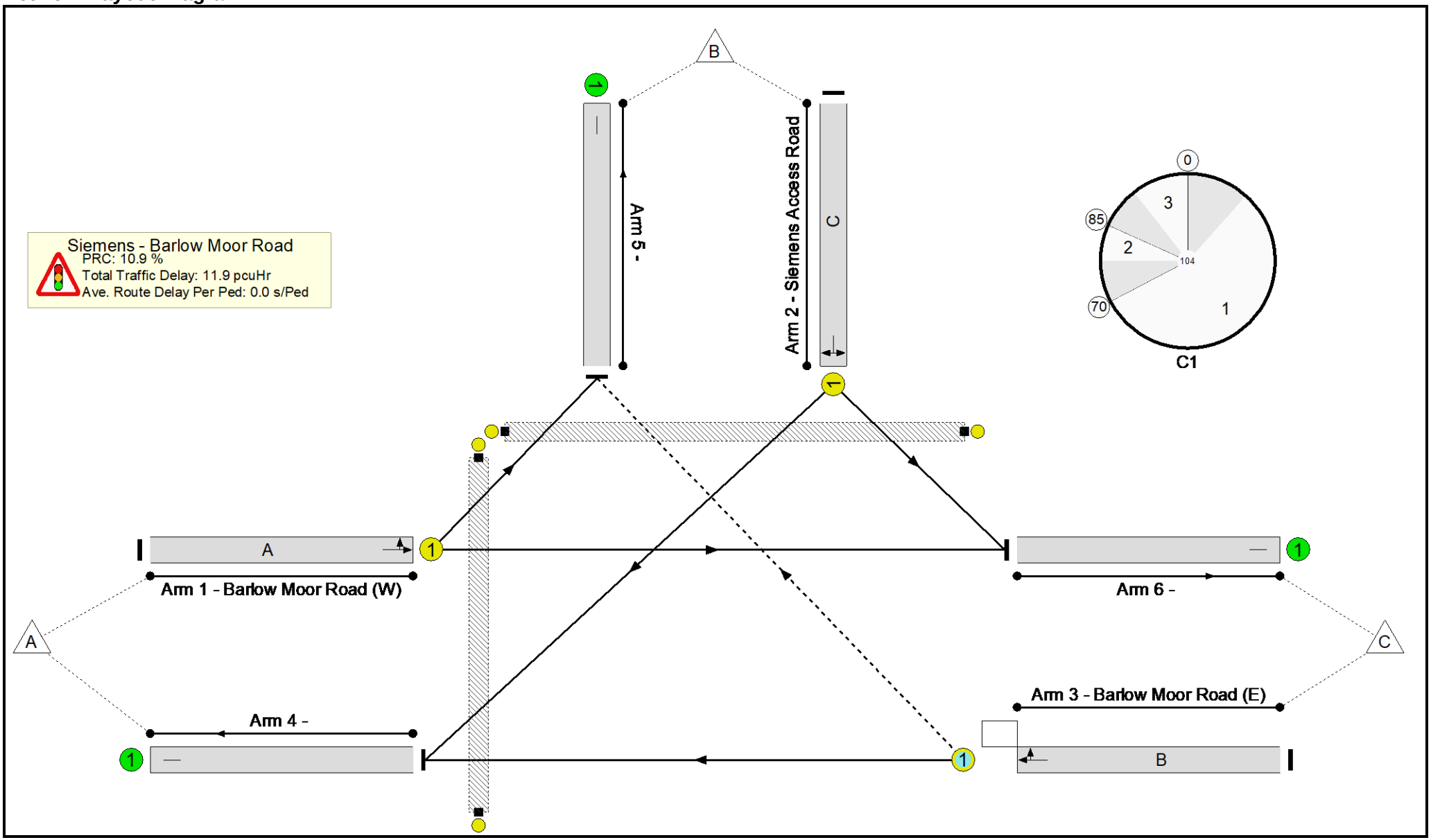
Stage	1	2	3
Duration	58	7	11
Change Point	0	70	85

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.2%**
Siemens - Barlow Moor Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.2%**
1/1	Barlow Moor Road (W) Left Ahead	U	N/A	N/A	A		1	58	-	723	1778	1009	71.7%
2/1	Siemens Access Road Right Left	U	N/A	N/A	C		1	7	-	36	1805	139	25.9%
3/1	Barlow Moor Road (E) Ahead Right	O	N/A	N/A	B		1	58	-	905	1965	1115	81.2%
4/1		U	N/A	N/A	-		-	-	-	904	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	637	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	123	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	11	-	0	-	0	0.0%

Full Input Data And Results

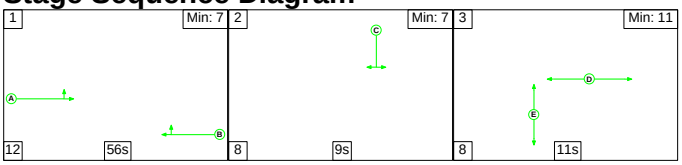
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**30**	**0**	**0**	**8.3**	**3.5**	**0.1**	**11.9**	**-**	**-**	**-**	**-**
Siemens - Barlow Moor Road	**-**	**-**	**30**	**0**	**0**	**8.3**	**3.5**	**0.1**	**11.9**	**-**	**-**	**-**	**-**
1/1	723	723	-	-	-	3.3	1.3	-	4.5	22.7	15.1	1.3	16.3
2/1	36	36	-	-	-	0.5	0.2	-	0.6	62.7	1.0	0.2	1.1
3/1	905	905	30	0	0	4.5	2.1	0.1	6.7	26.8	20.9	2.1	23.0
4/1	904	904	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	637	637	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	123	123	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 10.9 Total Delay for Signalled Lanes (pcuHr): 11.92 Cycle Time (s): 104
PRC Over All Lanes (%): 10.9 Total Delay Over All Lanes(pcuHr): 11.92

Full Input Data And Results

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

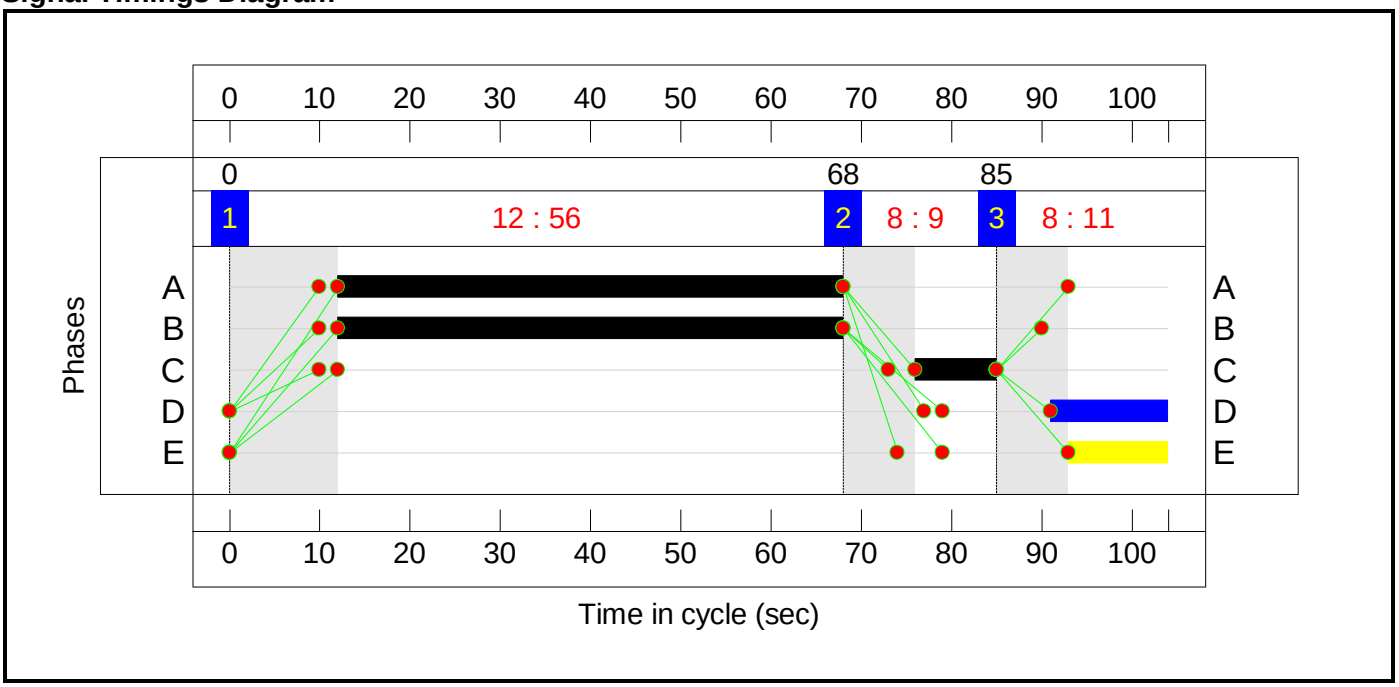
Stage Sequence Diagram



Stage Timings

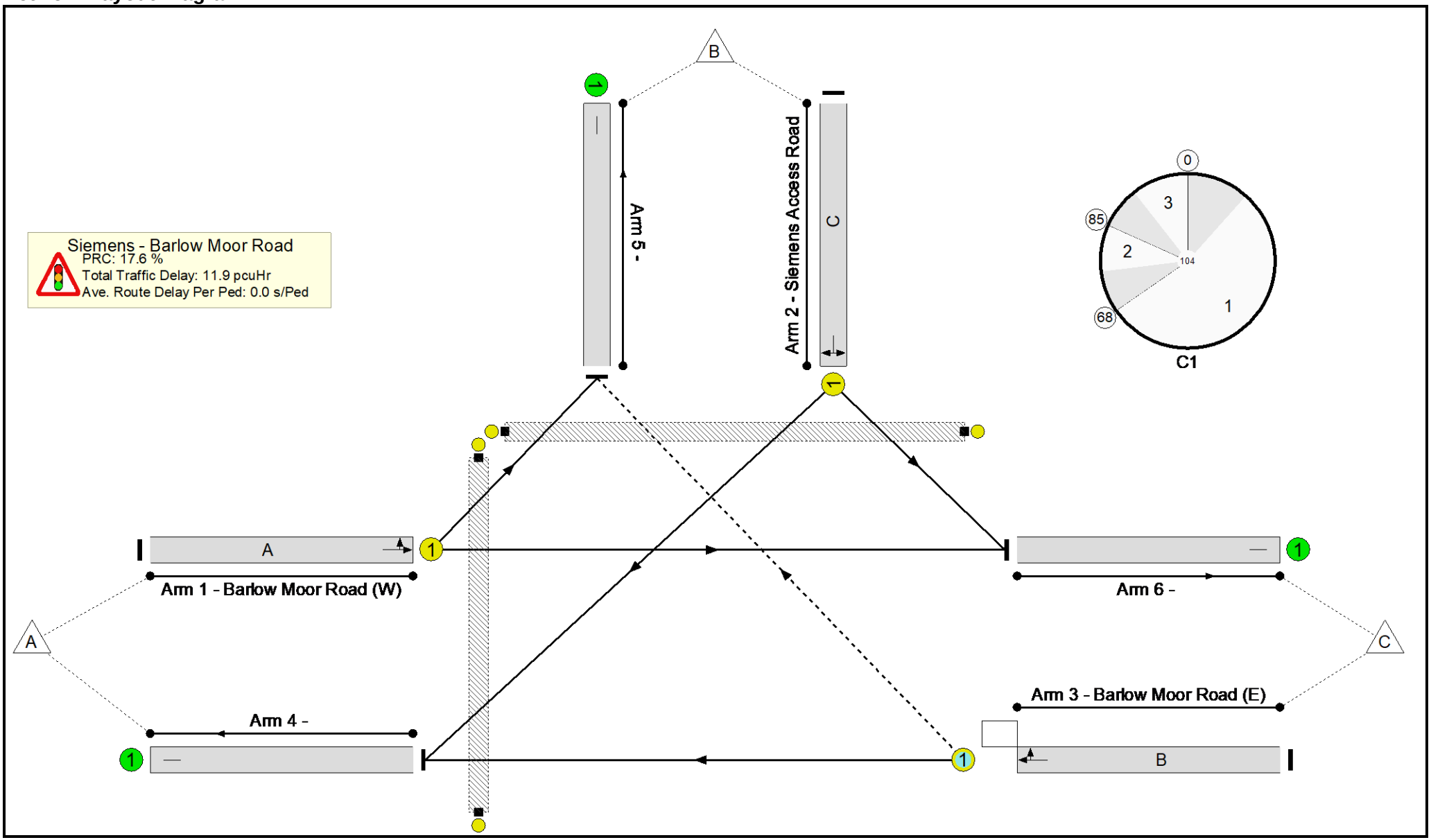
Stage	1	2	3
Duration	56	9	11
Change Point	0	68	85

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.5%**
Siemens - Barlow Moor Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.5%**
1/1	Barlow Moor Road (W) Left Ahead	U	N/A	N/A	A		1	56	-	649	1934	1060	61.2%
2/1	Siemens Access Road Right Left	U	N/A	N/A	C		1	9	-	114	1803	173	65.8%
3/1	Barlow Moor Road (E) Ahead Right	O	N/A	N/A	B		1	56	-	824	1965	1077	76.5%
4/1		U	N/A	N/A	-		-	-	-	890	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	59	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	638	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	11	-	0	-	0	0.0%

Full Input Data And Results

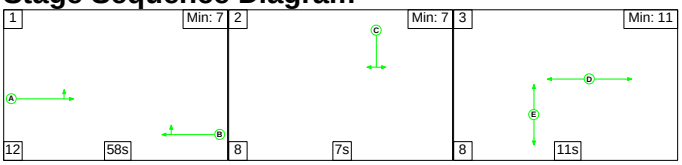
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**13**	**0**	**0**	**8.5**	**3.3**	**0.0**	**11.9**	**-**	**-**	**-**	**-**
Siemens - Barlow Moor Road	**-**	**-**	**13**	**0**	**0**	**8.5**	**3.3**	**0.0**	**11.9**	**-**	**-**	**-**	**-**
1/1	649	649	-	-	-	2.9	0.8	-	3.7	20.3	12.6	0.8	13.4
2/1	114	114	-	-	-	1.4	0.9	-	2.4	74.8	3.2	0.9	4.1
3/1	824	824	13	0	0	4.2	1.6	0.0	5.8	25.4	18.3	1.6	19.9
4/1	890	890	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	59	59	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	638	638	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 17.6 Total Delay for Signalled Lanes (pcuHr): 11.86 Cycle Time (s): 104
PRC Over All Lanes (%): 17.6 Total Delay Over All Lanes(pcuHr): 11.86

Full Input Data And Results

Scenario 3: 'AM Base + D1' (FG3: 'AM Base + D1', Plan 1: 'Network Control Plan 1')

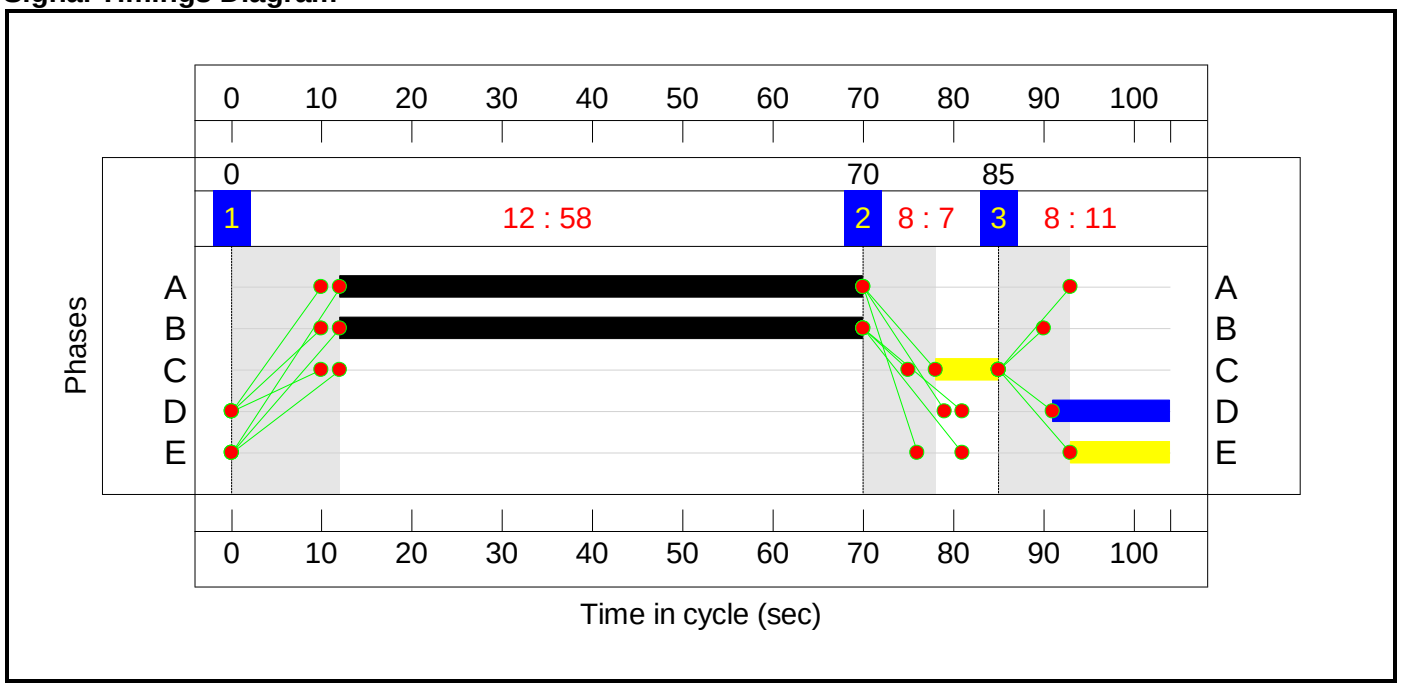
Stage Sequence Diagram



Stage Timings

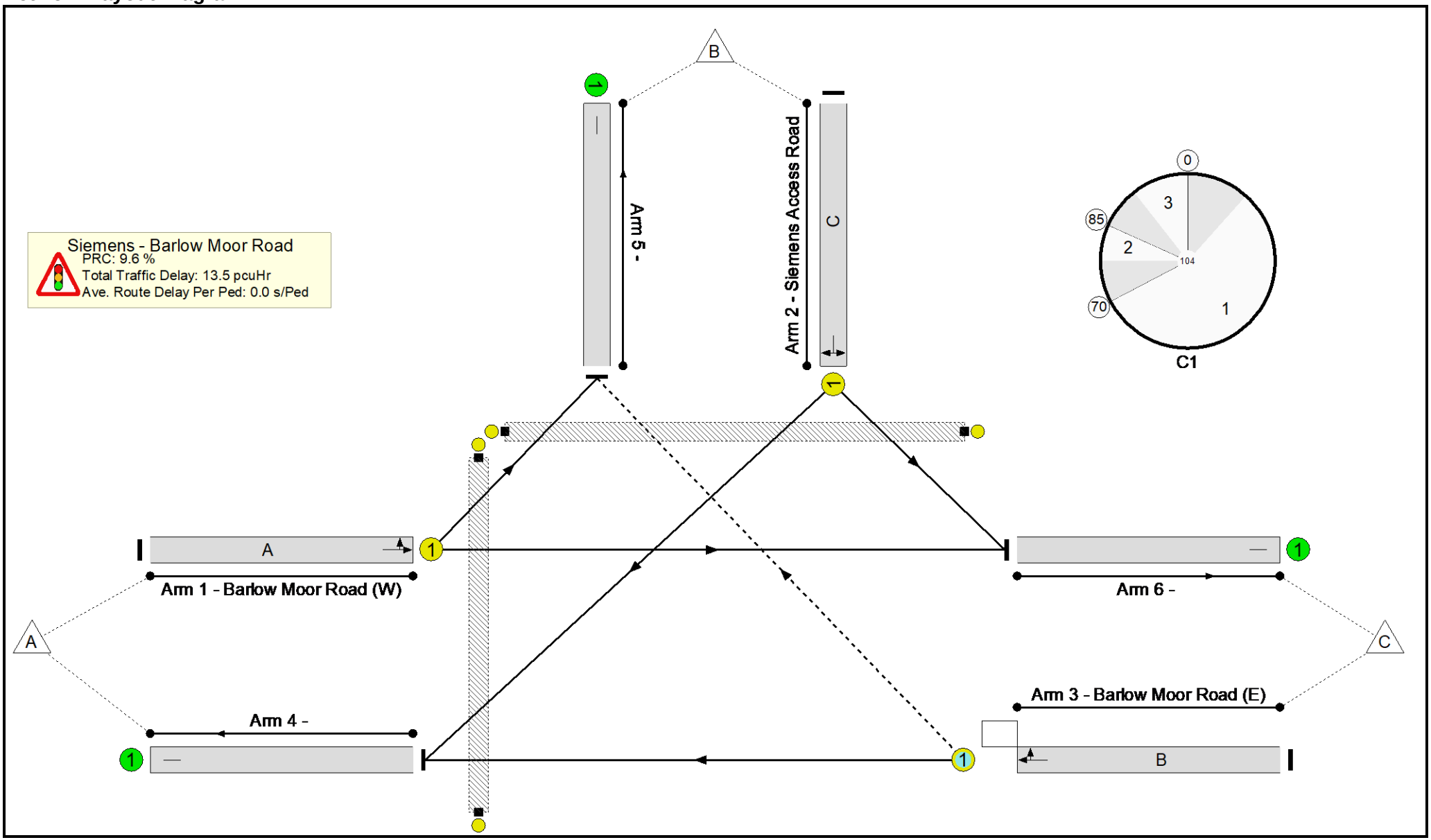
Stage	1	2	3
Duration	58	7	11
Change Point	0	70	85

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.1%**
Siemens - Barlow Moor Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.1%**
1/1	Barlow Moor Road (W) Left Ahead	U	N/A	N/A	A		1	58	-	824	1892	1073	76.8%
2/1	Siemens Access Road Right Left	U	N/A	N/A	C		1	7	-	50	1806	139	36.0%
3/1	Barlow Moor Road (E) Ahead Right	O	N/A	N/A	B		1	58	-	915	1965	1115	82.1%
4/1		U	N/A	N/A	-		-	-	-	917	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	257	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	615	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	11	-	0	-	0	0.0%

Full Input Data And Results

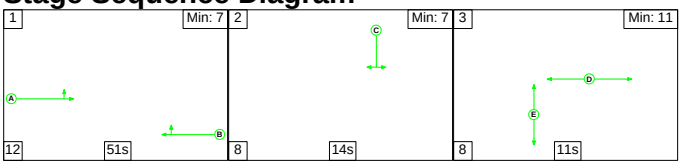
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**40**	**0**	**0**	**9.2**	**4.2**	**0.2**	**13.5**	**-**	**-**	**-**	**-**
Siemens - Barlow Moor Road	**-**	**-**	**40**	**0**	**0**	**9.2**	**4.2**	**0.2**	**13.5**	**-**	**-**	**-**	**-**
1/1	824	824	-	-	-	3.9	1.6	-	5.6	24.4	18.1	1.6	19.7
2/1	50	50	-	-	-	0.6	0.3	-	0.9	65.7	1.4	0.3	1.6
3/1	915	915	40	0	0	4.6	2.2	0.2	7.0	27.7	21.4	2.2	23.6
4/1	917	917	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	257	257	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	615	615	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 9.6 Total Delay for Signalled Lanes (pcuHr): 13.53 Cycle Time (s): 104
PRC Over All Lanes (%): 9.6 Total Delay Over All Lanes(pcuHr): 13.53

Full Input Data And Results

Scenario 4: 'PM Base + D1' (FG4: 'PM Base + D1', Plan 1: 'Network Control Plan 1')

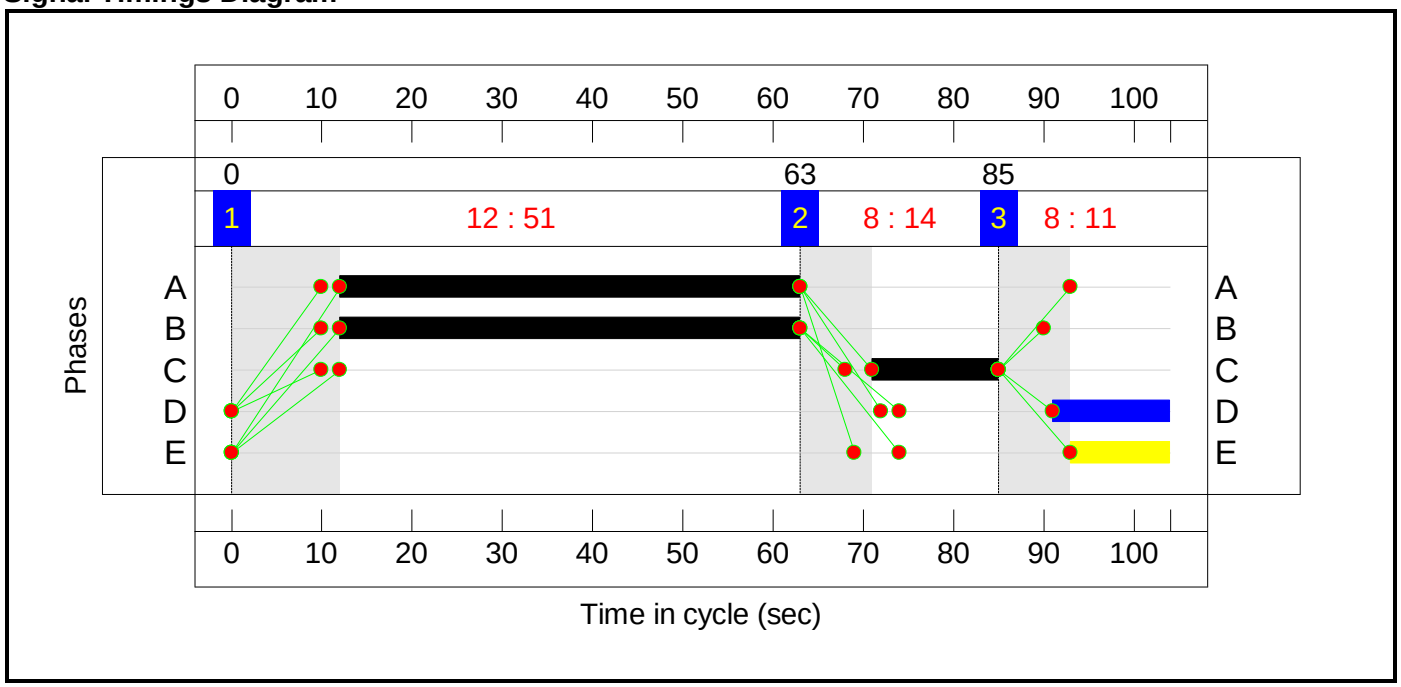
Stage Sequence Diagram



Stage Timings

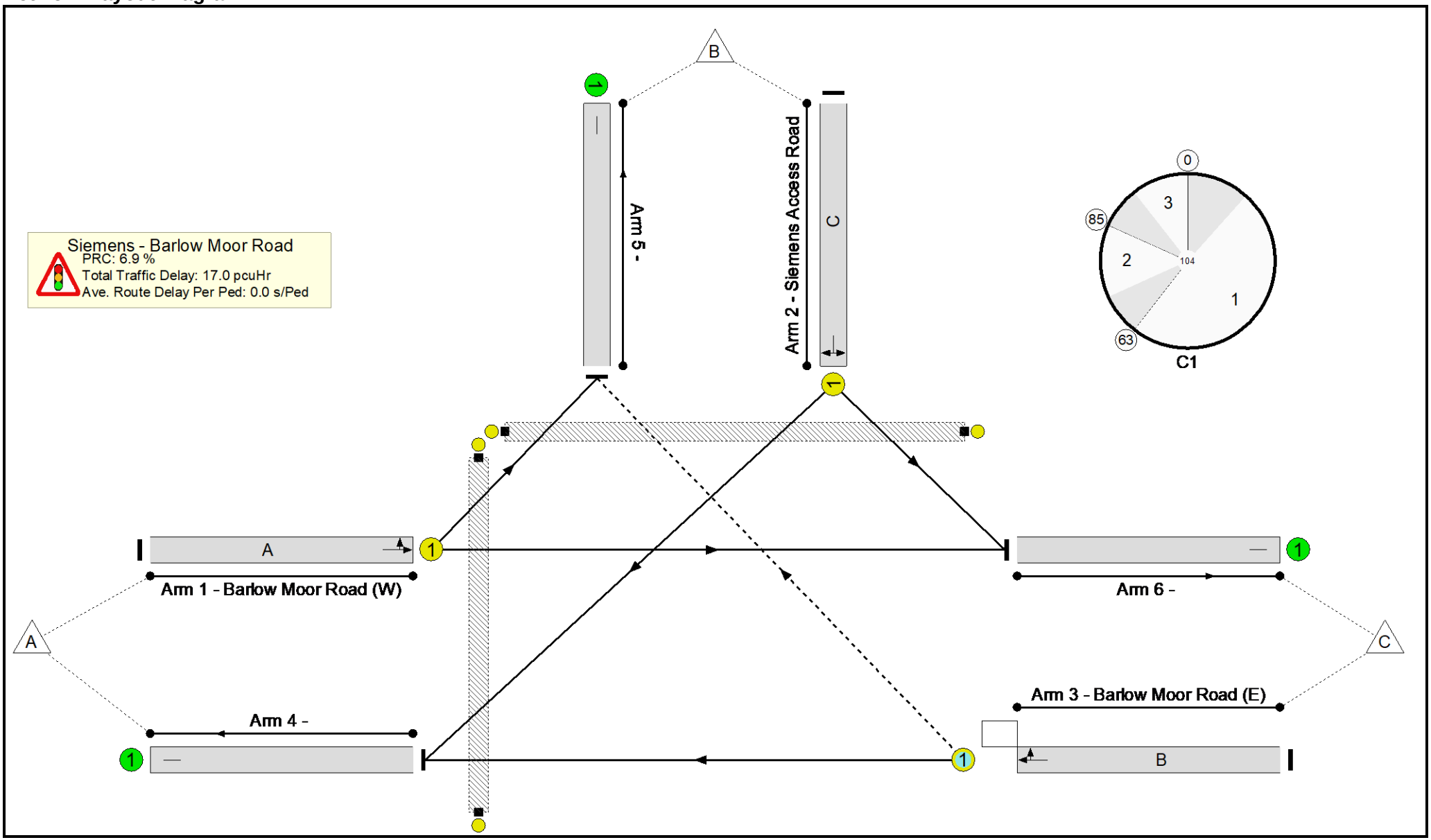
Stage	1	2	3
Duration	51	14	11
Change Point	0	63	85

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**84.2%**
Siemens - Barlow Moor Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**84.2%**
1/1	Barlow Moor Road (W) Left Ahead	U	N/A	N/A	A		1	51	-	663	1930	965	68.7%
2/1	Siemens Access Road Right Left	U	N/A	N/A	C		1	14	-	210	1805	260	80.7%
3/1	Barlow Moor Road (E) Ahead Right	O	N/A	N/A	B		1	51	-	827	1965	982	84.2%
4/1		U	N/A	N/A	-		-	-	-	980	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	73	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	647	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	11	-	0	-	0	0.0%

Full Input Data And Results

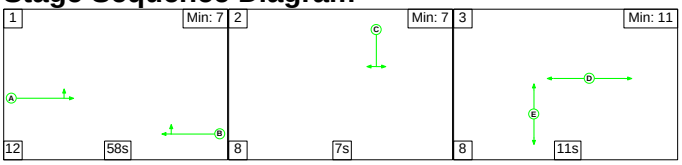
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**14**	**0**	**0**	**11.3**	**5.6**	**0.0**	**17.0**	**-**	**-**	**-**	**-**
Siemens - Barlow Moor Road	**-**	**-**	**14**	**0**	**0**	**11.3**	**5.6**	**0.0**	**17.0**	**-**	**-**	**-**	**-**
1/1	663	663	-	-	-	3.6	1.1	-	4.7	25.7	14.5	1.1	15.6
2/1	210	210	-	-	-	2.5	1.9	-	4.5	76.3	5.8	1.9	7.8
3/1	827	827	14	0	0	5.2	2.6	0.0	7.8	33.8	20.4	2.6	23.0
4/1	980	980	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	73	73	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	647	647	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 6.9 Total Delay for Signalled Lanes (pcuHr): 16.95 Cycle Time (s): 104
PRC Over All Lanes (%): 6.9 Total Delay Over All Lanes(pcuHr): 16.95

Full Input Data And Results

Scenario 5: 'AM Base + D1 + Meanwhile Use' (FG5: 'AM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

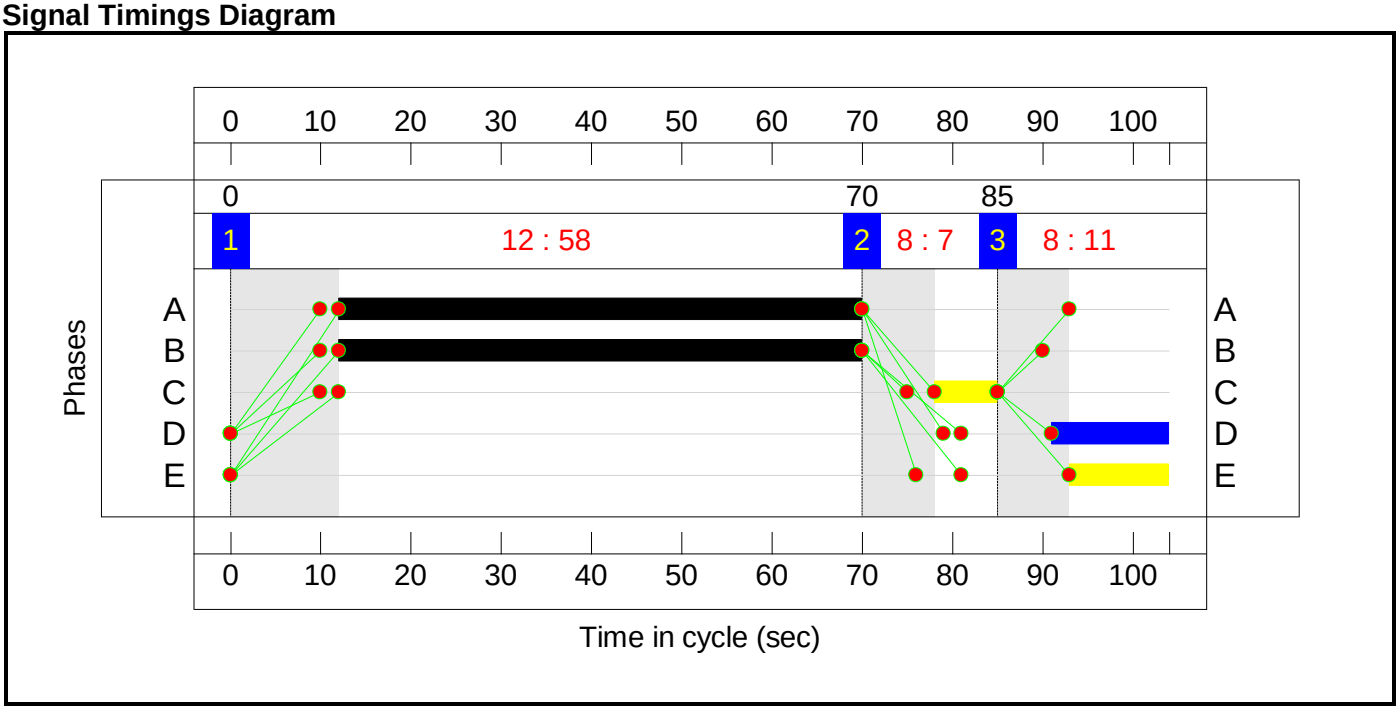
Stage Sequence Diagram



Stage Timings

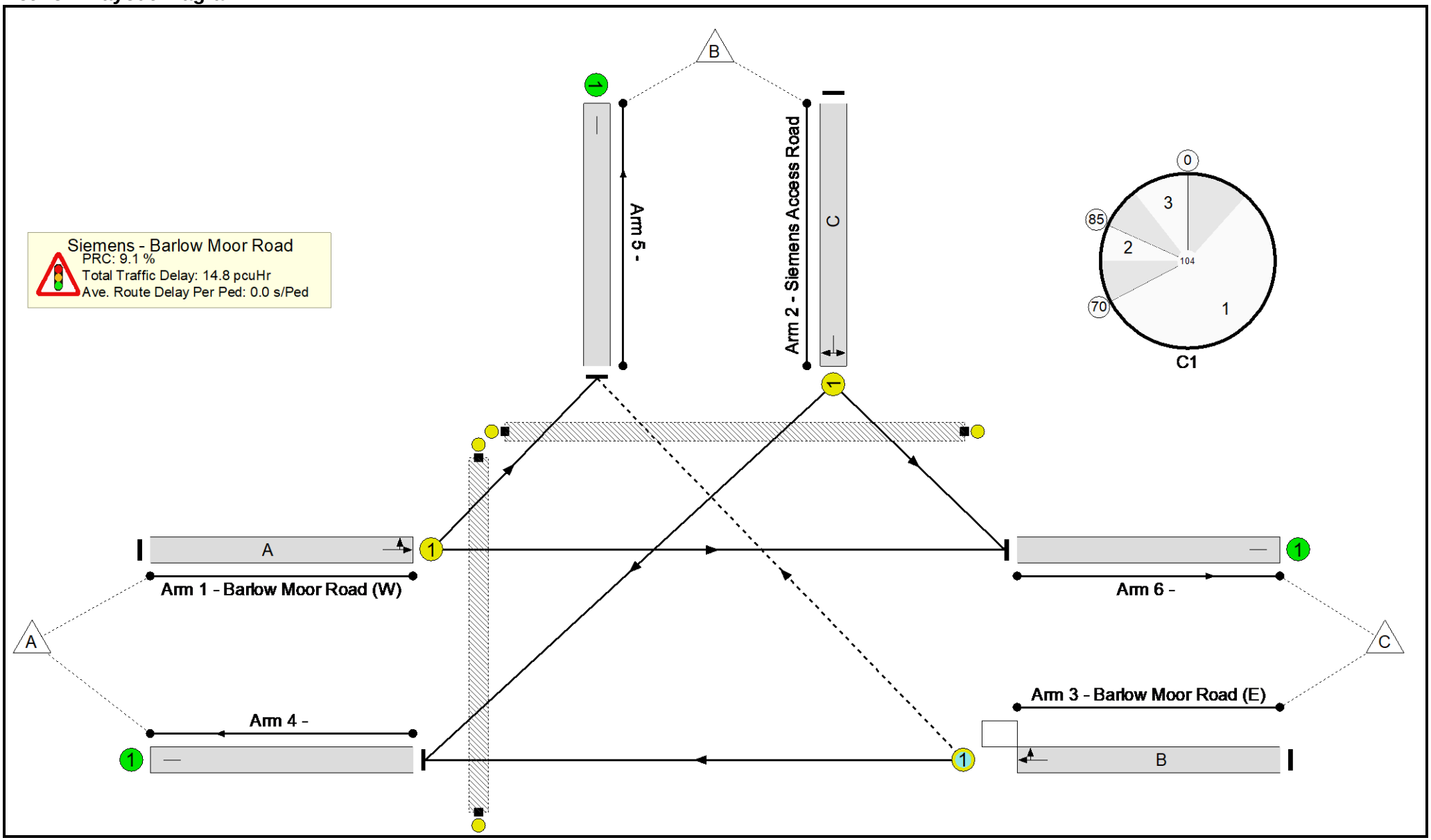
Stage	1	2	3
Duration	58	7	11
Change Point	0	70	85

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.5%**
Siemens - Barlow Moor Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.5%**
1/1	Barlow Moor Road (W) Left Ahead	U	N/A	N/A	A		1	58	-	871	1884	1069	81.5%
2/1	Siemens Access Road Right Left	U	N/A	N/A	C		1	7	-	57	1806	139	41.0%
3/1	Barlow Moor Road (E) Ahead Right	O	N/A	N/A	B		1	58	-	920	1965	1115	82.5%
4/1		U	N/A	N/A	-		-	-	-	923	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	309	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	616	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	11	-	0	-	0	0.0%

Full Input Data And Results

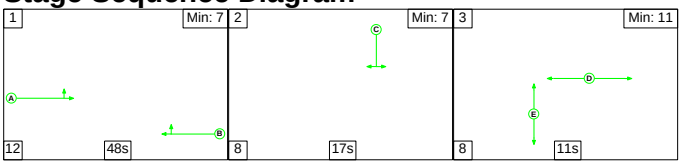
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**45**	**0**	**0**	**9.8**	**4.8**	**0.2**	**14.8**	**-**	**-**	**-**	**-**
Siemens - Barlow Moor Road	**-**	**-**	**45**	**0**	**0**	**9.8**	**4.8**	**0.2**	**14.8**	**-**	**-**	**-**	**-**
1/1	871	871	-	-	-	4.4	2.2	-	6.5	27.0	20.1	2.2	22.2
2/1	57	57	-	-	-	0.7	0.3	-	1.1	67.6	1.6	0.3	1.9
3/1	920	920	45	0	0	4.7	2.3	0.2	7.2	28.3	21.5	2.3	23.8
4/1	923	923	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	616	616	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 9.1 Total Delay for Signalled Lanes (pcuHr): 14.83 Cycle Time (s): 104
PRC Over All Lanes (%): 9.1 Total Delay Over All Lanes(pcuHr): 14.83

Full Input Data And Results

Scenario 6: 'PM Base + D1 + Meanwhile Use' (FG6: 'PM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

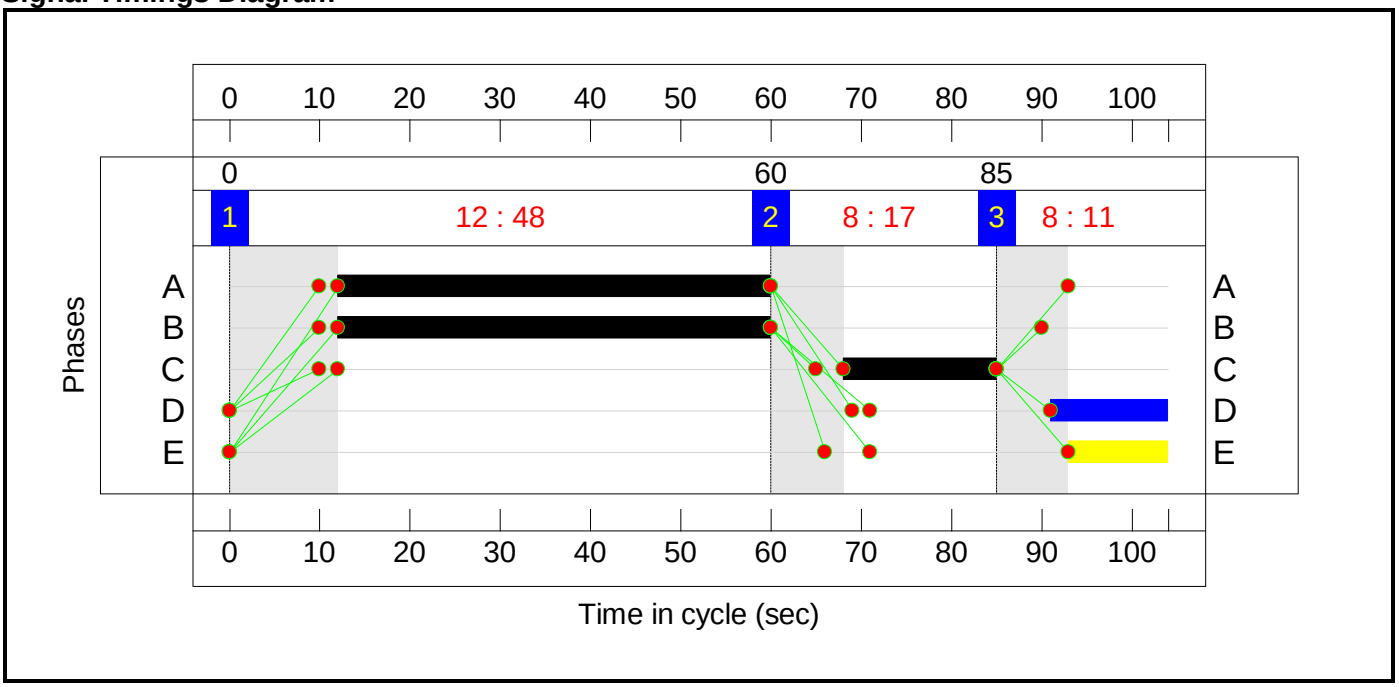
Stage Sequence Diagram



Stage Timings

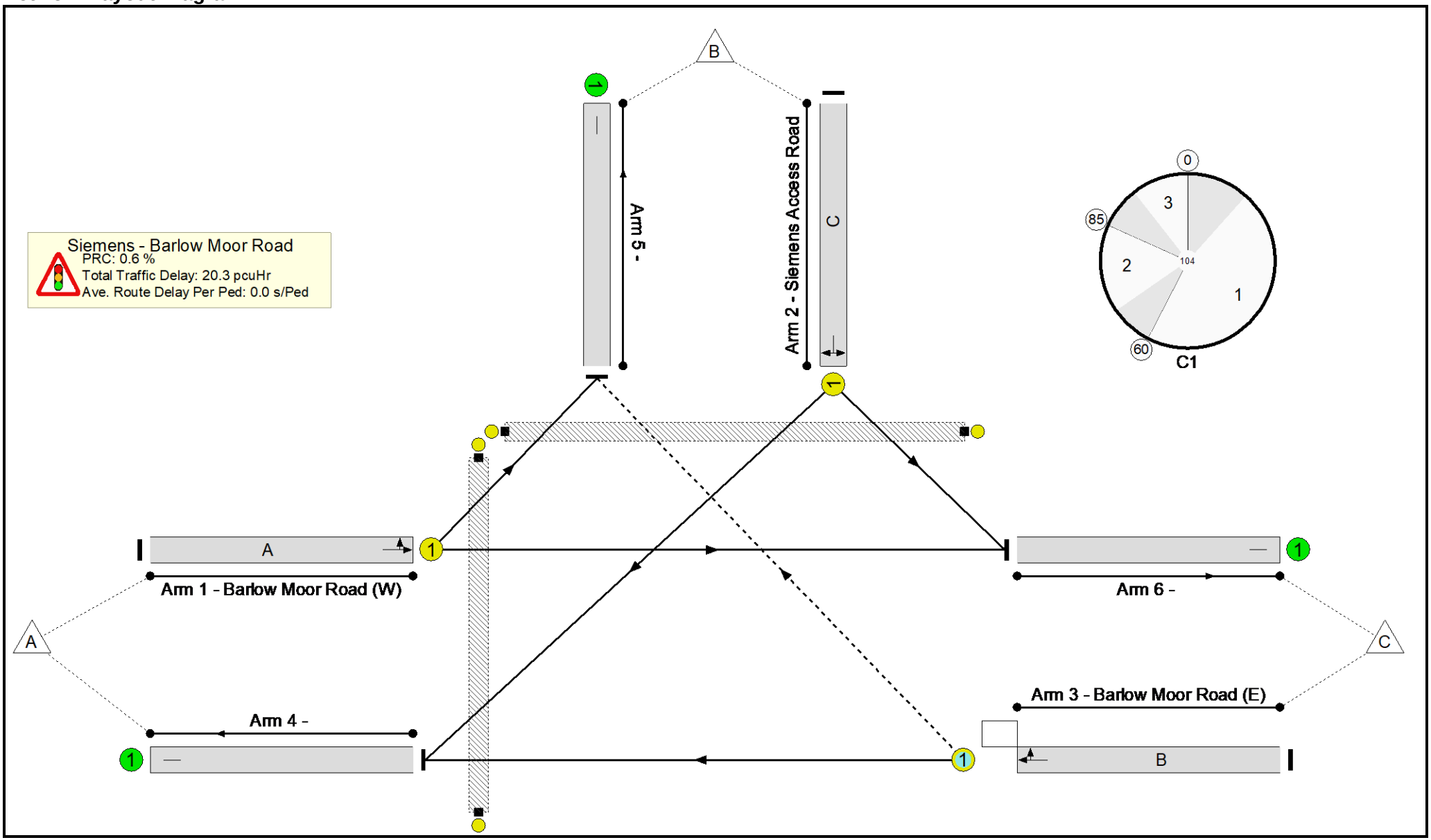
Stage	1	2	3
Duration	48	17	11
Change Point	0	60	85

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.4%**
Siemens - Barlow Moor Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.4%**
1/1	Barlow Moor Road (W) Left Ahead	U	N/A	N/A	A		1	48	-	669	1928	908	73.6%
2/1	Siemens Access Road Right Left	U	N/A	N/A	C		1	17	-	255	1806	313	81.6%
3/1	Barlow Moor Road (E) Ahead Right	O	N/A	N/A	B		1	48	-	828	1965	926	89.4%
4/1		U	N/A	N/A	-		-	-	-	1021	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	80	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	651	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	13	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	11	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**15**	**0**	**0**	**12.9**	**7.4**	**0.0**	**20.3**	**-**	**-**	**-**	**-**
Siemens - Barlow Moor Road	**-**	**-**	**15**	**0**	**0**	**12.9**	**7.4**	**0.0**	**20.3**	**-**	**-**	**-**	**-**
1/1	669	669	-	-	-	4.1	1.4	-	5.5	29.7	15.6	1.4	17.0
2/1	255	255	-	-	-	2.9	2.1	-	5.0	70.6	7.1	2.1	9.1
3/1	828	828	15	0	0	5.8	3.9	0.0	9.7	42.4	21.8	3.9	25.8
4/1	1021	1021	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	80	80	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	651	651	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-

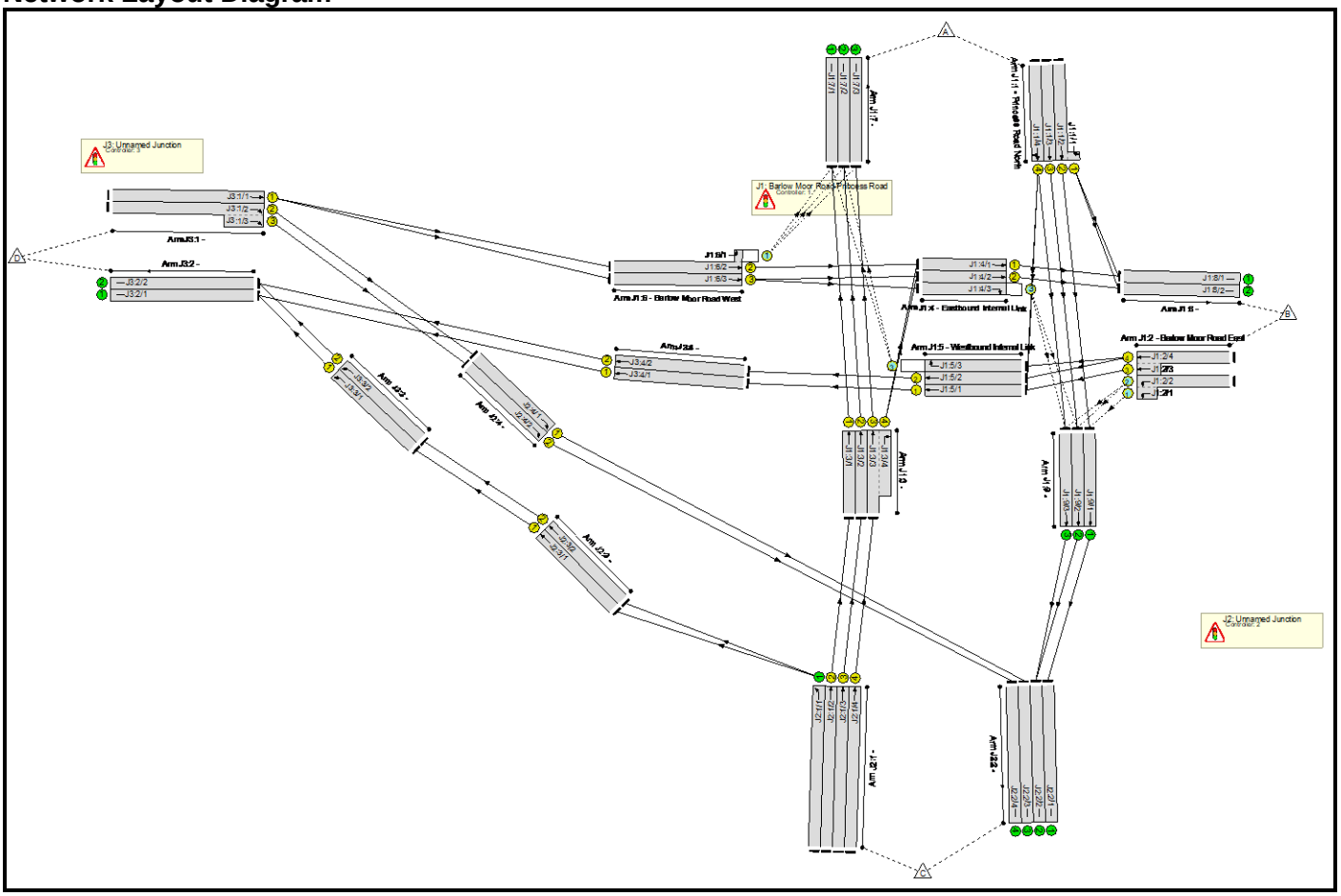
C1 PRC for Signalled Lanes (%): 0.6 Total Delay for Signalled Lanes (pcuHr): 20.26 Cycle Time (s): 104
PRC Over All Lanes (%): 0.6 Total Delay Over All Lanes(pcuHr): 20.26

Full Input Data And Results

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	Princess Road - Barlow Moor Road (For Planning).lsg3x
Author:	
Company:	
Address:	

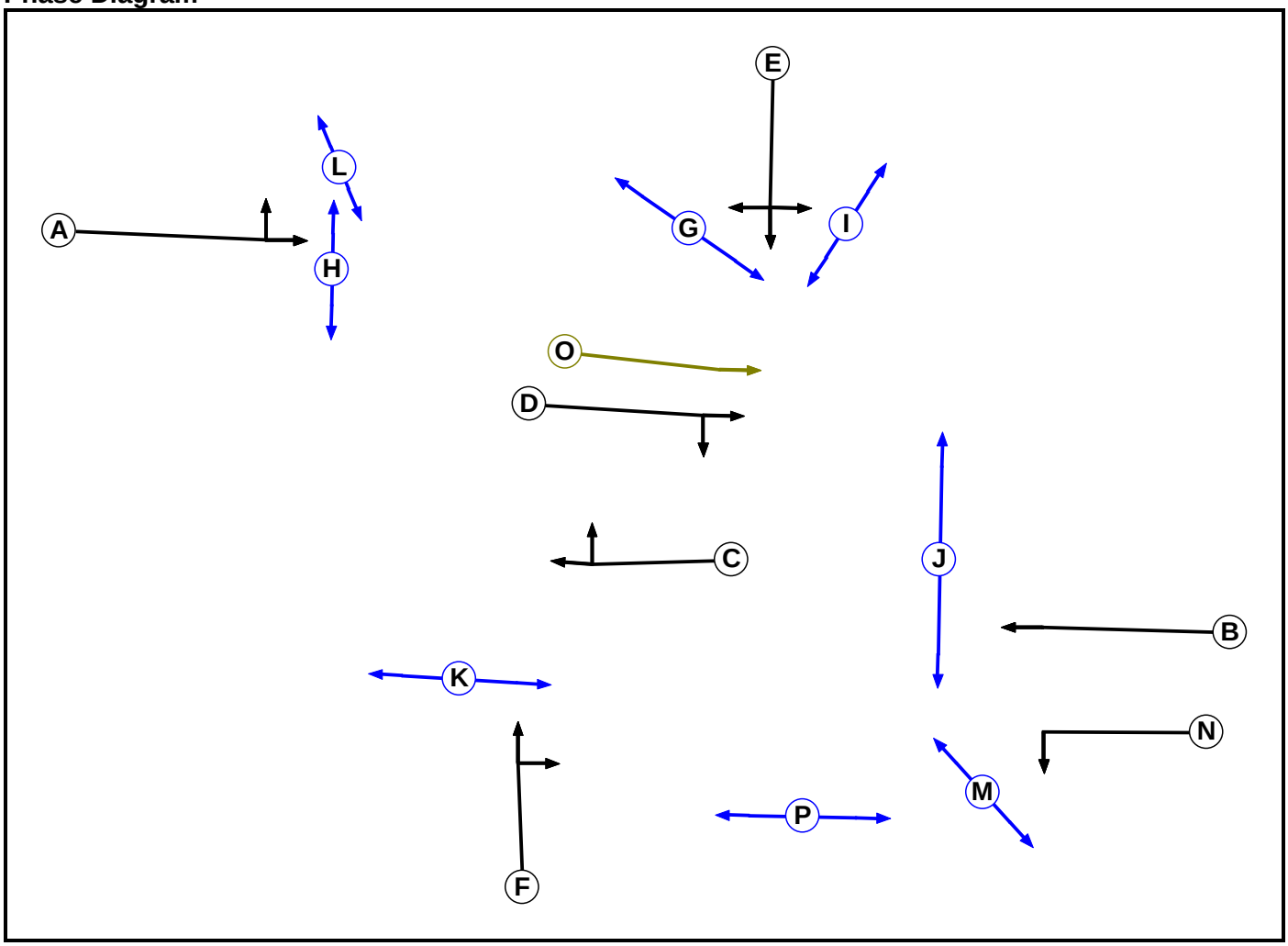
Network Layout Diagram



Full Input Data And Results

C1

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		5	5
E	Traffic		7	7
F	Traffic		7	7
G	Pedestrian		7	7
H	Pedestrian		7	7
I	Pedestrian		5	5
J	Pedestrian		7	7
K	Pedestrian		9	9
L	Pedestrian		5	5
M	Pedestrian		5	5
N	Traffic		7	7
O	Filter	D	0	0
P	Pedestrian		7	7

Full Input Data And Results

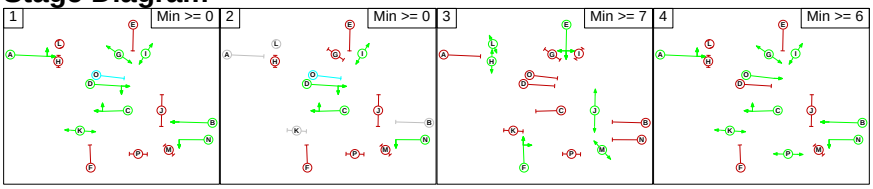
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
A		-	-	-	-	5	-	5	-	-	-	5	-	-	-	-
B	-		-	-	5	-	-	-	-	5	-	-	-	-	-	-
C	-	-		-	-	6	-	8	-	-	-	-	-	-	-	-
D	-	-	-		6	-	-	-	-	8	-	-	-	-	-	9
E	-	8	-	8		-	6	-	6	-	-	-	-	9	7	10
F	8	-	8	-	-		-	-	-	-	6	-	-	-	-	-
G	-	-	-	-	10	-		-	-	-	-	-	-	-	-	-
H	9	-	9	-	-	-	-		-	-	-	-	-	-	-	-
I	-	-	-	-	6	-	-	-		-	-	-	-	-	-	-
J	-	7	-	7	-	-	-	-	-		-	-	-	-	6	-
K	-	-	-	-	-	12	-	-	-	-		-	-	-	-	-
L	5	-	-	-	-	-	-	-	-	-	-		-	-	-	-
M	-	-	-	-	-	-	-	-	-	-	-	-		7	-	-
N	-	-	-	-	5	-	-	-	-	-	-	-	5		-	-
O	-	-	-	-	6	-	-	-	-	8	-	-	-	-		-
P	-	-	-	9	9	-	-	-	-	-	-	-	-	-	-	

Phases in Stage

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

Stage Diagram



Full Input Data And Results

Phase Delays

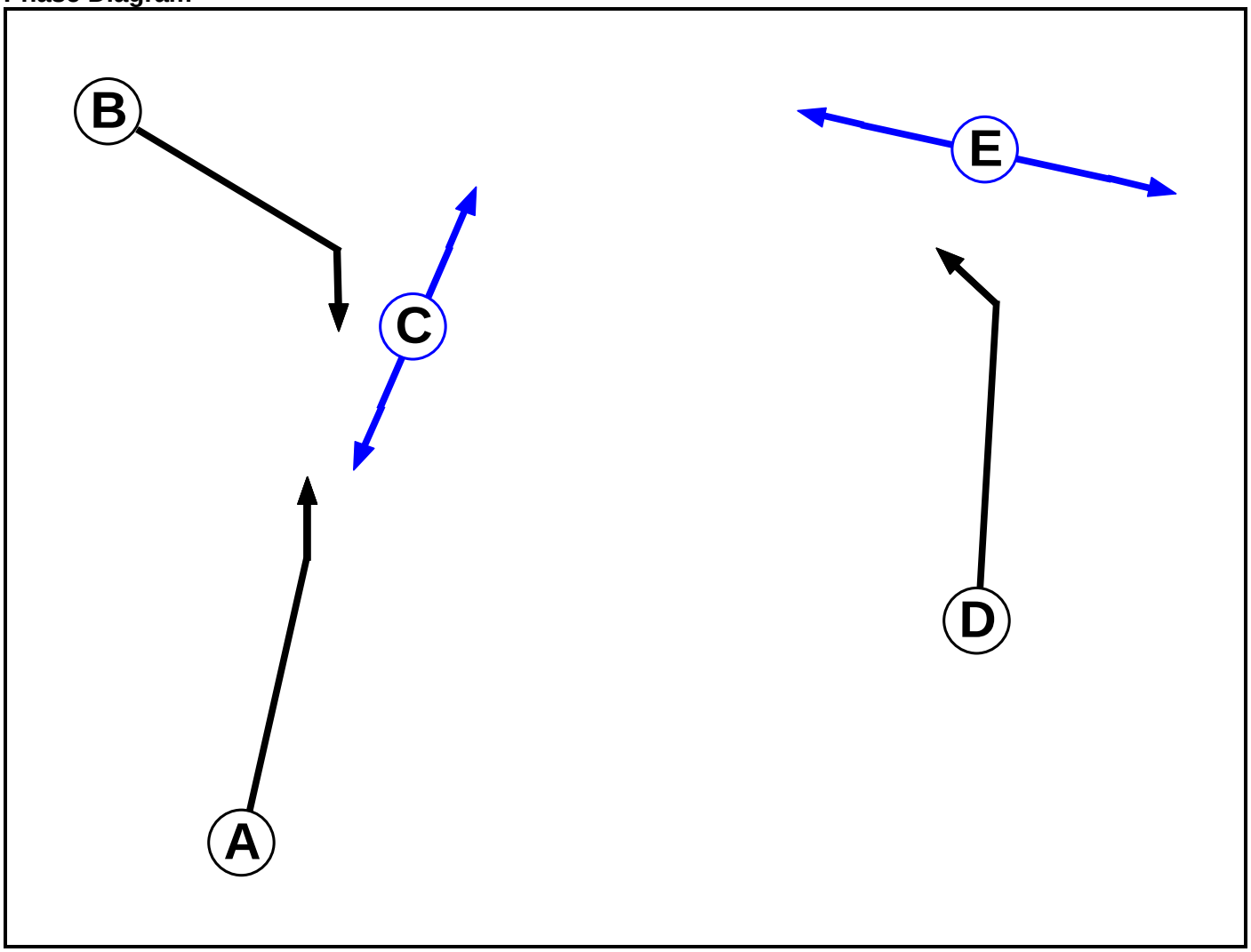
Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	G	Losing	2	2
2	3	C	Losing	2	2
2	3	D	Losing	4	4
2	3	I	Losing	3	3
3	1	F	Losing	1	1
3	1	H	Losing	1	1
3	1	L	Losing	2	2
3	1	M	Losing	2	2
3	4	F	Losing	3	3
3	4	H	Losing	2	2
3	4	L	Losing	4	4
3	4	M	Losing	2	2

Prohibited Stage Change

		To Stage			
		1	2	3	4
From Stage	1		2	12	9
	2	2		12	9
	3	10	9		11
	4	9	9	X	

C2

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Pedestrian	1		7	7
D	Traffic	2		7	7
E	Pedestrian	2		7	7

Full Input Data And Results

Phase Intergreens Matrix

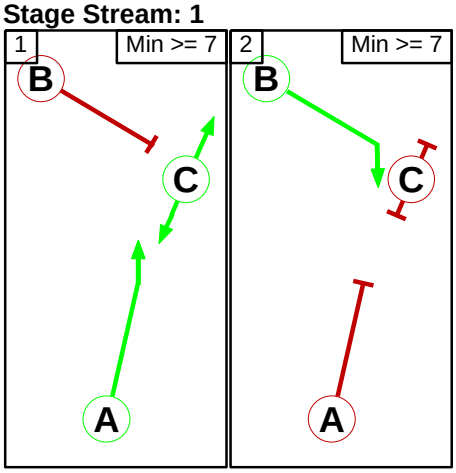
Terminating Phase	Starting Phase A	B	C	D	E
A		7	-	-	-
B	8		5	-	-
C	-	7		-	-
D	-	-	-		5
E	-	-	-	7	

Phases in Stage

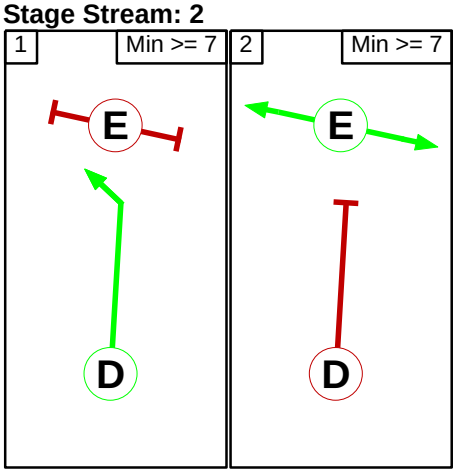
Stream	Stage No.	Phases in Stage
1	1	A C
1	2	B
2	1	D
2	2	E

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Full Input Data And Results

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

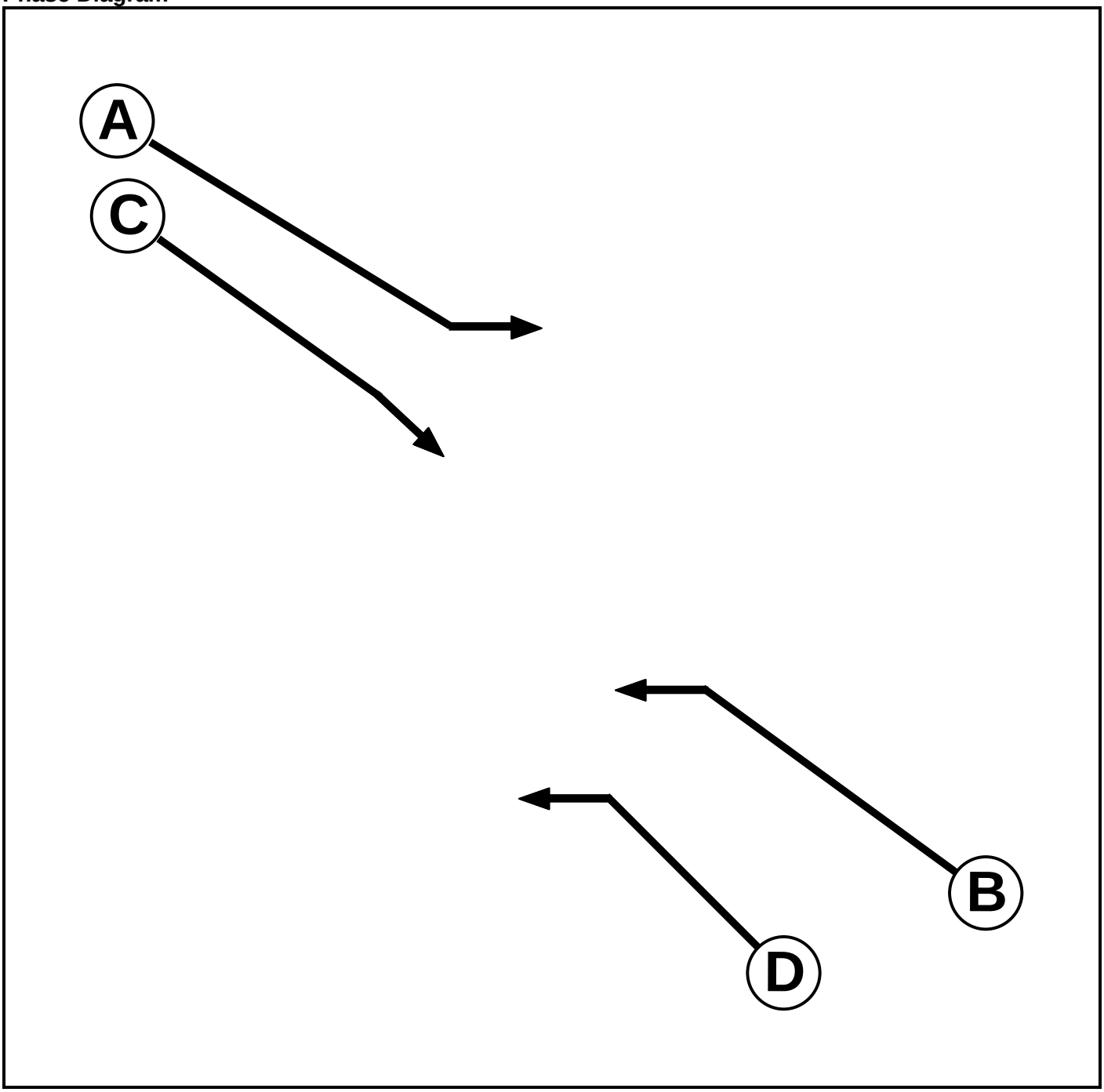
	To Stage		
From Stage		1	2
	1		7
	2	8	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		5
	2	7	

C3

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

Full Input Data And Results

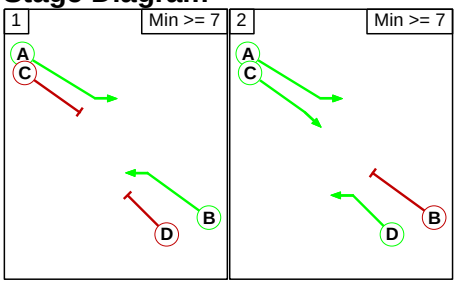
Phase Intergreens Matrix

Terminating Phase	Starting Phase				
		A	B	C	D
	A		-	-	-
	B	-		6	6
	C	-	5		-
	D	-	7	-	

Phases in Stage

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

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
	1		6
	2	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Barlow Moor Road-Princess Road

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J1:2/1 (Barlow Moor Road East)	J1:9/1 (Left)	1439	0	J1:4/3	1.09	All	-	-	-	-	-
J1:2/2 (Barlow Moor Road East)	J1:9/2 (Left)	1439	0	J1:4/3	1.09	All	-	-	-	-	-
	J1:9/3 (Left)	1439	0	J1:4/3	1.09	All					
J1:4/3 (Eastbound Internal Link)	J1:9/2 (Right)	1439	0	J1:2/3	1.09	All	2.00	-	0.50	2	2.00
				J1:2/4	1.09	All					
	J1:9/3 (Right)	1439	0	J1:2/3	1.09	All					
				J1:2/4	1.09	All					
J1:5/3 (Westbound Internal Link)	J1:7/1 (Right)	1439	0	J1:6/1	1.09	All	3.00	-	0.50	3	3.00
				J1:6/2	1.09	All					
				J1:6/3	1.09	All					
	J1:7/2 (Right)	1439	0	J1:6/1	1.09	All					
				J1:6/2	1.09	All					
				J1:6/3	1.09	All					
J1:6/1 (Barlow Moor Road West)	J1:7/1 (Left)	1439	0	J1:3/1	1.09	All	2.00	-	0.50	2	2.00
				J1:3/2	1.09	All					
				J1:3/3	1.09	All					
				J1:5/3	1.09	All					
	J1:7/2 (Left)	1439	0	J1:3/1	1.09	All					
				J1:3/2	1.09	All					
				J1:3/3	1.09	All					
				J1:5/3	1.09	All					
	J1:7/3 (Left)	1439	0	J1:3/1	1.09	All					
				J1:3/2	1.09	All					

				J1:3/3	1.09	All					
				J1:5/3	1.09	All					

Junction: J2: Unnamed Junction
There are no Opposed Lanes in this Junction

Junction: J3: Unnamed Junction
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: J1: Barlow Moor Road-Princess 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)
J1:1/1 (Princess Road North)	U	E	2	3	1.0	Geom	-	5.00	0.00	Y	Arm J1:8 Left	18.00
J1:1/2 (Princess Road North)	U	E	2	3	60.0	Geom	-	3.60	0.00	Y	Arm J1:9 Ahead	Inf
J1:1/3 (Princess Road North)	U	E	2	3	60.0	Geom	-	3.60	0.00	N	Arm J1:9 Ahead	Inf
J1:1/4 (Princess Road North)	U	E	2	3	60.0	Geom	-	3.60	0.00	N	Arm J1:5 Right	45.00
											Arm J1:9 Ahead	Inf
J1:2/1 (Barlow Moor Road East)	O	N	2	3	2.6	Geom	-	3.00	0.00	Y	Arm J1:9 Left	80.00
J1:2/2 (Barlow Moor Road East)	O	N	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J1:9 Left	80.00
J1:2/3 (Barlow Moor Road East)	U	B	2	3	3.0	Geom	-	3.60	0.00	Y	Arm J1:5 Ahead	Inf
J1:2/4 (Barlow Moor Road East)	U	B	2	3	60.0	Geom	-	3.60	0.00	Y	Arm J1:5 Ahead	Inf
J1:3/1	U	F	2	3	22.6	Geom	-	3.50	0.00	Y	Arm J1:7 Ahead	Inf
J1:3/2	U	F	2	3	22.6	Geom	-	3.50	0.00	N	Arm J1:7 Ahead	Inf
J1:3/3	U	F	2	3	22.6	Geom	-	3.50	0.00	N	Arm J1:7 Ahead	Inf
J1:3/4	U	F	2	3	13.0	Geom	-	3.50	0.00	N	Arm J1:4 Right	24.00
J1:4/1 (Eastbound Internal Link)	U	D O	2	3	8.7	Geom	-	3.30	0.00	Y	Arm J1:8 Ahead	Inf
J1:4/2 (Eastbound Internal Link)	U	D O	2	3	8.7	Geom	-	3.30	0.00	N	Arm J1:8 Ahead	Inf
J1:4/3 (Eastbound Internal Link)	O	D	2	3	8.7	Geom	-	3.30	0.00	N	Arm J1:9 Right	25.00
J1:5/1 (Westbound Internal Link)	U	C	2	3	8.7	Geom	-	3.30	0.00	Y	Arm J3:4 Ahead	Inf

J1:5/2 (Westbound Internal Link)	U	C	2	3	8.7	Geom	-	3.30	0.00	N	Arm J3:4 Ahead	Inf
J1:5/3 (Westbound Internal Link)	O	C	2	3	8.7	Geom	-	3.30	0.00	N	Arm J1:7 Right	33.00
J1:6/1 (Barlow Moor Road West)	O	A	2	3	0.2	Geom	-	5.00	0.00	Y	Arm J1:7 Left	40.00
J1:6/2 (Barlow Moor Road West)	U	A	2	3	13.0	Geom	-	3.50	0.00	Y	Arm J1:4 Ahead	Inf
J1:6/3 (Barlow Moor Road West)	U	A	2	3	13.0	Geom	-	3.50	0.00	N	Arm J1:4 Ahead	Inf
J1:7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:7/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:7/3	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:8/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:9/1	U		2	3	1.0	Inf	-	-	-	-	-	-
J1:9/2	U		2	3	1.0	Inf	-	-	-	-	-	-
J1:9/3	U		2	3	1.0	Inf	-	-	-	-	-	-

Junction: J2: Unnamed Junction

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	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:1/2	U	A	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J1:3 Ahead	Inf
J2:1/3	U	A	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J1:3 Ahead	Inf
J2:1/4	U	A	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J1:3 Ahead	Inf
J2:2/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:2/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:2/3	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:2/4	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:3/1	U	D	2	3	22.6	Geom	-	3.25	0.00	Y	Arm J3:3 Ahead	3.70
J2:3/2	U	D	2	3	22.6	Geom	-	3.70	0.00	Y	Arm J3:3 Ahead	Inf
J2:4/1	U	B	2	3	22.6	Geom	-	3.70	0.00	Y	Arm J2:2 Right	Inf
J2:4/2	U	B	2	3	22.6	Geom	-	3.70	0.00	Y	Arm J2:2 Right	Inf

Full Input Data And Results

Junction: J3: Unnamed Junction												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
J3:1/1	U	A	2	3	60.0	Geom	-	3.30	0.00	Y	Arm J1:6 Ahead	Inf
J3:1/2	U	C	2	3	60.0	Geom	-	3.30	0.00	Y	Arm J2:4 Ahead	62.00
J3:1/3	U	C	2	3	5.0	Geom	-	3.30	0.00	Y	Arm J2:4 Ahead	62.00
J3:2/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:2/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:3/1	U	D	2	3	17.4	Geom	-	3.60	0.00	Y	Arm J3:2 Ahead	Inf
J3:3/2	U	D	2	3	17.4	Geom	-	3.60	0.00	Y	Arm J3:2 Ahead	Inf
J3:4/1	U	B	2	3	13.0	Geom	-	3.50	0.00	Y	Arm J3:2 Ahead	Inf
J3:4/2	U	B	2	3	13.0	Geom	-	3.50	0.00	Y	Arm J3:2 Ahead	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Base'	08:00	09:00	01:00	
2: 'PM Base'	17:00	18:00	01:00	
3: 'AM Base + D1'	08:00	09:00	01:00	
4: 'PM Base + D1'	17:00	18:00	01:00	
5: 'AM Base + D1 + Meanwhile Use'	08:00	09:00	01:00	
6: 'PM Base + D1 + Meanwhile Use'	17:00	18:00	01:00	

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

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	134	1851	116	2101
	B	154	0	509	258	921
	C	2054	343	0	583	2980
	D	91	265	592	0	948
	Tot.	2299	742	2952	957	6950

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: AM Base
Junction: J1: Barlow Moor Road-Princess Road	
J1:1/1 (short)	134
J1:1/2 (with short)	667(In) 533(Out)
J1:1/3	720
J1:1/4	714
J1:2/1 (short)	287
J1:2/2 (with short)	509(In) 222(Out)
J1:2/3 (short)	124
J1:2/4 (with short)	412(In) 288(Out)
J1:3/1	721
J1:3/2	758
J1:3/3 (with short)	918(In) 575(Out)
J1:3/4 (short)	343
J1:4/1	302
J1:4/2	306
J1:4/3	88
J1:5/1	183
J1:5/2	191
J1:5/3	154
J1:6/1 (short)	91
J1:6/2 (with short)	228(In) 137(Out)
J1:6/3	216
J1:7/1	828
J1:7/2	865
J1:7/3	606
J1:8/1	369
J1:8/2	373
J1:9/1	820
J1:9/2	875
J1:9/3	753
Junction: J2: Unnamed Junction	
J2:1/1	583
J2:1/2	721
J2:1/3	758
J2:1/4	918
J2:2/1	820

Full Input Data And Results

J2:2/2	1628
J2:2/3	252
J2:2/4	252
J2:3/1	162
J2:3/2	421
J2:4/1	252
J2:4/2	252
Junction: J3: Unnamed Junction	
J3:1/1	444
J3:1/2 (with short)	504(In) 252(Out)
J3:1/3 (short)	252
J3:2/1	345
J3:2/2	612
J3:3/1	162
J3:3/2	421
J3:4/1	183
J3:4/2	191

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Barlow Moor Road-Princess Road								
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 (Princess Road North)	5.00	0.00	Y	Arm J1:8 Left	18.00	100.0 %	1952	1952
J1:1/2 (Princess Road North)	3.60	0.00	Y	Arm J1:9 Ahead	Inf	100.0 %	1975	1975
J1:1/3 (Princess Road North)	3.60	0.00	N	Arm J1:9 Ahead	Inf	100.0 %	2115	2115
J1:1/4 (Princess Road North)	3.60	0.00	N	Arm J1:5 Right Arm J1:9 Ahead	45.00 Inf	16.2 % 83.8 %	2104	2104
J1:2/1 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/2 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/3 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:2/4 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:3/1	3.50	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1965	1965
J1:3/2	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/3	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/4	3.50	0.00	N	Arm J1:4 Right	24.00	100.0 %	1981	1981
J1:4/1 (Eastbound Internal Link)	3.30	0.00	Y	Arm J1:8 Ahead	Inf	100.0 %	1945	1945
J1:4/2 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:8 Ahead	Inf	100.0 %	2085	2085
J1:4/3 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:9 Right	25.00	100.0 %	1967	1967
J1:5/1 (Westbound Internal Link)	3.30	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1945	1945
J1:5/2 (Westbound Internal Link)	3.30	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2085	2085
J1:5/3 (Westbound Internal Link)	3.30	0.00	N	Arm J1:7 Right	33.00	100.0 %	1994	1994
J1:6/1 (Barlow Moor Road West)	5.00	0.00	Y	Arm J1:7 Left	40.00	100.0 %	2039	2039
J1:6/2 (Barlow Moor Road West)	3.50	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1965	1965
J1:6/3 (Barlow Moor Road West)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:7/2	Infinite Saturation Flow						Inf	Inf
J1:7/3	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf
J1:8/2	Infinite Saturation Flow						Inf	Inf
J1:9/1	Infinite Saturation Flow						Inf	Inf

J1:9/2	Infinite Saturation Flow	Inf	Inf
J1:9/3	Infinite Saturation Flow	Inf	Inf

Junction: J2: Unnamed Junction								
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	Infinite Saturation Flow						Inf	Inf
J2:1/2	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/3	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/4	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:2/4	Infinite Saturation Flow						Inf	Inf
J2:3/1	3.25	0.00	Y	Arm J3:3 Ahead	3.70	100.0 %	1380	1380
J2:3/2	3.70	0.00	Y	Arm J3:3 Ahead	Inf	100.0 %	1985	1985
J2:4/1	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985
J2:4/2	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985

Junction: J3: Unnamed Junction								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1	3.30	0.00	Y	Arm J1:6 Ahead	Inf	100.0 %	1945	1945
J3:1/2	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:1/3	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:2/2	Infinite Saturation Flow						Inf	Inf
J3:3/1	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:3/2	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:4/1	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965
J3:4/2	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965

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

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	143	2348	82	2573
	B	141	0	545	225	911
	C	1941	329	0	537	2807
	D	99	229	666	0	994
	Tot.	2181	701	3559	844	7285

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: PM Base
Junction: J1: Barlow Moor Road-Princess Road	
J1:1/1 (short)	143
J1:1/2 (with short)	816(In) 673(Out)
J1:1/3	881
J1:1/4	876
J1:2/1 (short)	303
J1:2/2 (with short)	545(In) 242(Out)
J1:2/3 (short)	119
J1:2/4 (with short)	366(In) 247(Out)
J1:3/1	749
J1:3/2	753
J1:3/3 (with short)	768(In) 439(Out)
J1:3/4 (short)	329
J1:4/1	264
J1:4/2	294
J1:4/3	66
J1:5/1	157
J1:5/2	150
J1:5/3	141
J1:6/1 (short)	99
J1:6/2 (with short)	204(In) 105(Out)
J1:6/3	190
J1:7/1	852
J1:7/2	857
J1:7/3	472
J1:8/1	335
J1:8/2	366
J1:9/1	976
J1:9/2	1035
J1:9/3	948
Junction: J2: Unnamed Junction	
J2:1/1	537
J2:1/2	749
J2:1/3	753
J2:1/4	768
J2:2/1	976

Full Input Data And Results

J2:2/2	1983
J2:2/3	300
J2:2/4	300
J2:3/1	122
J2:3/2	415
J2:4/1	300
J2:4/2	300
Junction: J3: Unnamed Junction	
J3:1/1	394
J3:1/2 (with short)	600(In) 300(Out)
J3:1/3 (short)	300
J3:2/1	279
J3:2/2	565
J3:3/1	122
J3:3/2	415
J3:4/1	157
J3:4/2	150

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Barlow Moor Road-Princess Road								
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 (Princess Road North)	5.00	0.00	Y	Arm J1:8 Left	18.00	100.0 %	1952	1952
J1:1/2 (Princess Road North)	3.60	0.00	Y	Arm J1:9 Ahead	Inf	100.0 %	1975	1975
J1:1/3 (Princess Road North)	3.60	0.00	N	Arm J1:9 Ahead	Inf	100.0 %	2115	2115
J1:1/4 (Princess Road North)	3.60	0.00	N	Arm J1:5 Right Arm J1:9 Ahead	45.00 Inf	9.4 % 90.6 %	2108	2108
J1:2/1 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/2 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/3 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:2/4 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:3/1	3.50	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1965	1965
J1:3/2	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/3	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/4	3.50	0.00	N	Arm J1:4 Right	24.00	100.0 %	1981	1981
J1:4/1 (Eastbound Internal Link)	3.30	0.00	Y	Arm J1:8 Ahead	Inf	100.0 %	1945	1945
J1:4/2 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:8 Ahead	Inf	100.0 %	2085	2085
J1:4/3 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:9 Right	25.00	100.0 %	1967	1967
J1:5/1 (Westbound Internal Link)	3.30	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1945	1945
J1:5/2 (Westbound Internal Link)	3.30	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2085	2085
J1:5/3 (Westbound Internal Link)	3.30	0.00	N	Arm J1:7 Right	33.00	100.0 %	1994	1994
J1:6/1 (Barlow Moor Road West)	5.00	0.00	Y	Arm J1:7 Left	40.00	100.0 %	2039	2039
J1:6/2 (Barlow Moor Road West)	3.50	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1965	1965
J1:6/3 (Barlow Moor Road West)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:7/2	Infinite Saturation Flow						Inf	Inf
J1:7/3	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf
J1:8/2	Infinite Saturation Flow						Inf	Inf
J1:9/1	Infinite Saturation Flow						Inf	Inf

J1:9/2	Infinite Saturation Flow	Inf	Inf
J1:9/3	Infinite Saturation Flow	Inf	Inf

Junction: J2: Unnamed Junction								
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	Infinite Saturation Flow						Inf	Inf
J2:1/2	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/3	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/4	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:2/4	Infinite Saturation Flow						Inf	Inf
J2:3/1	3.25	0.00	Y	Arm J3:3 Ahead	3.70	100.0 %	1380	1380
J2:3/2	3.70	0.00	Y	Arm J3:3 Ahead	Inf	100.0 %	1985	1985
J2:4/1	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985
J2:4/2	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985

Junction: J3: Unnamed Junction								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1	3.30	0.00	Y	Arm J1:6 Ahead	Inf	100.0 %	1945	1945
J3:1/2	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:1/3	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:2/2	Infinite Saturation Flow						Inf	Inf
J3:3/1	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:3/2	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:4/1	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965
J3:4/2	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965

Scenario 3: 'AM Base + D1' (FG3: 'AM Base + D1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	158	1851	116	2125
	B	157	0	518	259	934
	C	2054	412	0	583	3049
	D	91	275	592	0	958
	Tot.	2302	845	2961	958	7066

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: AM Base + D1
Junction: J1: Barlow Moor Road-Princess Road	
J1:1/1 (short)	158
J1:1/2 (with short)	677(In) 519(Out)
J1:1/3	726
J1:1/4	722
J1:2/1 (short)	292
J1:2/2 (with short)	518(In) 226(Out)
J1:2/3 (short)	129
J1:2/4 (with short)	416(In) 287(Out)
J1:3/1	739
J1:3/2	777
J1:3/3 (with short)	950(In) 538(Out)
J1:3/4 (short)	412
J1:4/1	336
J1:4/2	351
J1:4/3	88
J1:5/1	188
J1:5/2	187
J1:5/3	157
J1:6/1 (short)	91
J1:6/2 (with short)	228(In) 137(Out)
J1:6/3	226
J1:7/1	847
J1:7/2	886
J1:7/3	569
J1:8/1	415
J1:8/2	430
J1:9/1	811
J1:9/2	883
J1:9/3	763
Junction: J2: Unnamed Junction	
J2:1/1	583
J2:1/2	739
J2:1/3	777
J2:1/4	950
J2:2/1	811

Full Input Data And Results

J2:2/2	1646
J2:2/3	252
J2:2/4	252
J2:3/1	161
J2:3/2	422
J2:4/1	252
J2:4/2	252
Junction: J3: Unnamed Junction	
J3:1/1	454
J3:1/2 (with short)	504(In) 252(Out)
J3:1/3 (short)	252
J3:2/1	349
J3:2/2	609
J3:3/1	161
J3:3/2	422
J3:4/1	188
J3:4/2	187

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Barlow Moor Road-Princess Road								
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 (Princess Road North)	5.00	0.00	Y	Arm J1:8 Left	18.00	100.0 %	1952	1952
J1:1/2 (Princess Road North)	3.60	0.00	Y	Arm J1:9 Ahead	Inf	100.0 %	1975	1975
J1:1/3 (Princess Road North)	3.60	0.00	N	Arm J1:9 Ahead	Inf	100.0 %	2115	2115
J1:1/4 (Princess Road North)	3.60	0.00	N	Arm J1:5 Right Arm J1:9 Ahead	45.00 Inf	16.1 % 83.9 %	2104	2104
J1:2/1 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/2 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/3 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:2/4 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:3/1	3.50	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1965	1965
J1:3/2	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/3	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/4	3.50	0.00	N	Arm J1:4 Right	24.00	100.0 %	1981	1981
J1:4/1 (Eastbound Internal Link)	3.30	0.00	Y	Arm J1:8 Ahead	Inf	100.0 %	1945	1945
J1:4/2 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:8 Ahead	Inf	100.0 %	2085	2085
J1:4/3 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:9 Right	25.00	100.0 %	1967	1967
J1:5/1 (Westbound Internal Link)	3.30	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1945	1945
J1:5/2 (Westbound Internal Link)	3.30	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2085	2085
J1:5/3 (Westbound Internal Link)	3.30	0.00	N	Arm J1:7 Right	33.00	100.0 %	1994	1994
J1:6/1 (Barlow Moor Road West)	5.00	0.00	Y	Arm J1:7 Left	40.00	100.0 %	2039	2039
J1:6/2 (Barlow Moor Road West)	3.50	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1965	1965
J1:6/3 (Barlow Moor Road West)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:7/2	Infinite Saturation Flow						Inf	Inf
J1:7/3	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf
J1:8/2	Infinite Saturation Flow						Inf	Inf
J1:9/1	Infinite Saturation Flow						Inf	Inf

J1:9/2	Infinite Saturation Flow	Inf	Inf
J1:9/3	Infinite Saturation Flow	Inf	Inf

Junction: J2: Unnamed Junction								
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	Infinite Saturation Flow						Inf	Inf
J2:1/2	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/3	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/4	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:2/4	Infinite Saturation Flow						Inf	Inf
J2:3/1	3.25	0.00	Y	Arm J3:3 Ahead	3.70	100.0 %	1380	1380
J2:3/2	3.70	0.00	Y	Arm J3:3 Ahead	Inf	100.0 %	1985	1985
J2:4/1	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985
J2:4/2	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985

Junction: J3: Unnamed Junction								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1	3.30	0.00	Y	Arm J1:6 Ahead	Inf	100.0 %	1945	1945
J3:1/2	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:1/3	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:2/2	Infinite Saturation Flow						Inf	Inf
J3:3/1	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:3/2	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:4/1	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965
J3:4/2	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965

Scenario 4: 'PM Base + D1' (FG4: 'PM Base + D1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	146	2348	82	2576
	B	161	0	605	234	1000
	C	1941	338	0	537	2816
	D	99	230	666	0	995
	Tot.	2201	714	3619	853	7387

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: PM Base + D1
Junction: J1: Barlow Moor Road-Princess Road	
J1:1/1 (short)	146
J1:1/2 (with short)	818(In) 672(Out)
J1:1/3	881
J1:1/4	877
J1:2/1 (short)	329
J1:2/2 (with short)	605(In) 276(Out)
J1:2/3 (short)	117
J1:2/4 (with short)	395(In) 278(Out)
J1:3/1	750
J1:3/2	755
J1:3/3 (with short)	774(In) 436(Out)
J1:3/4 (short)	338
J1:4/1	268
J1:4/2	300
J1:4/3	66
J1:5/1	158
J1:5/2	158
J1:5/3	161
J1:6/1 (short)	99
J1:6/2 (with short)	204(In) 105(Out)
J1:6/3	191
J1:7/1	863
J1:7/2	869
J1:7/3	469
J1:8/1	341
J1:8/2	373
J1:9/1	1001
J1:9/2	1052
J1:9/3	966
Junction: J2: Unnamed Junction	
J2:1/1	537
J2:1/2	750
J2:1/3	755
J2:1/4	774
J2:2/1	1001

Full Input Data And Results

J2:2/2	2018
J2:2/3	300
J2:2/4	300
J2:3/1	126
J2:3/2	411
J2:4/1	300
J2:4/2	300
Junction: J3: Unnamed Junction	
J3:1/1	395
J3:1/2 (with short)	600(In) 300(Out)
J3:1/3 (short)	300
J3:2/1	284
J3:2/2	569
J3:3/1	126
J3:3/2	411
J3:4/1	158
J3:4/2	158

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Barlow Moor Road-Princess Road								
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 (Princess Road North)	5.00	0.00	Y	Arm J1:8 Left	18.00	100.0 %	1952	1952
J1:1/2 (Princess Road North)	3.60	0.00	Y	Arm J1:9 Ahead	Inf	100.0 %	1975	1975
J1:1/3 (Princess Road North)	3.60	0.00	N	Arm J1:9 Ahead	Inf	100.0 %	2115	2115
J1:1/4 (Princess Road North)	3.60	0.00	N	Arm J1:5 Right Arm J1:9 Ahead	45.00 Inf	9.4 % 90.6 %	2108	2108
J1:2/1 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/2 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/3 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:2/4 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:3/1	3.50	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1965	1965
J1:3/2	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/3	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/4	3.50	0.00	N	Arm J1:4 Right	24.00	100.0 %	1981	1981
J1:4/1 (Eastbound Internal Link)	3.30	0.00	Y	Arm J1:8 Ahead	Inf	100.0 %	1945	1945
J1:4/2 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:8 Ahead	Inf	100.0 %	2085	2085
J1:4/3 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:9 Right	25.00	100.0 %	1967	1967
J1:5/1 (Westbound Internal Link)	3.30	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1945	1945
J1:5/2 (Westbound Internal Link)	3.30	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2085	2085
J1:5/3 (Westbound Internal Link)	3.30	0.00	N	Arm J1:7 Right	33.00	100.0 %	1994	1994
J1:6/1 (Barlow Moor Road West)	5.00	0.00	Y	Arm J1:7 Left	40.00	100.0 %	2039	2039
J1:6/2 (Barlow Moor Road West)	3.50	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1965	1965
J1:6/3 (Barlow Moor Road West)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:7/2	Infinite Saturation Flow						Inf	Inf
J1:7/3	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf
J1:8/2	Infinite Saturation Flow						Inf	Inf
J1:9/1	Infinite Saturation Flow						Inf	Inf

J1:9/2	Infinite Saturation Flow	Inf	Inf
J1:9/3	Infinite Saturation Flow	Inf	Inf

Junction: J2: Unnamed Junction

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	Infinite Saturation Flow						Inf	Inf
J2:1/2	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/3	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/4	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:2/4	Infinite Saturation Flow						Inf	Inf
J2:3/1	3.25	0.00	Y	Arm J3:3 Ahead	3.70	100.0 %	1380	1380
J2:3/2	3.70	0.00	Y	Arm J3:3 Ahead	Inf	100.0 %	1985	1985
J2:4/1	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985
J2:4/2	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985

Junction: J3: Unnamed Junction

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1	3.30	0.00	Y	Arm J1:6 Ahead	Inf	100.0 %	1945	1945
J3:1/2	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:1/3	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:2/2	Infinite Saturation Flow						Inf	Inf
J3:3/1	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:3/2	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:4/1	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965
J3:4/2	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965

Scenario 5: 'AM Base + D1 + Meanwhile Use' (FG5: 'AM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	169	1851	116	2136
	B	158	0	522	260	940
	C	2054	445	0	583	3082
	D	91	280	592	0	963
	Tot.	2303	894	2965	959	7121

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: AM Base + D1 + Meanwhile Use
Junction: J1: Barlow Moor Road-Princess Road	
J1:1/1 (short)	169
J1:1/2 (with short)	681(In) 512(Out)
J1:1/3	730
J1:1/4	725
J1:2/1 (short)	296
J1:2/2 (with short)	522(In) 226(Out)
J1:2/3 (short)	129
J1:2/4 (with short)	418(In) 289(Out)
J1:3/1	754
J1:3/2	793
J1:3/3 (with short)	952(In) 507(Out)
J1:3/4 (short)	445
J1:4/1	353
J1:4/2	372
J1:4/3	88
J1:5/1	188
J1:5/2	188
J1:5/3	158
J1:6/1 (short)	91
J1:6/2 (with short)	229(In) 138(Out)
J1:6/3	230
J1:7/1	863
J1:7/2	902
J1:7/3	538
J1:8/1	437
J1:8/2	457
J1:9/1	808
J1:9/2	887
J1:9/3	766
Junction: J2: Unnamed Junction	
J2:1/1	583
J2:1/2	754
J2:1/3	793
J2:1/4	952

Full Input Data And Results

J2:2/1	808
J2:2/2	1653
J2:2/3	252
J2:2/4	252
J2:3/1	161
J2:3/2	422
J2:4/1	252
J2:4/2	252
Junction: J3: Unnamed Junction	
J3:1/1	459
J3:1/2 (with short)	504(In) 252(Out)
J3:1/3 (short)	252
J3:2/1	349
J3:2/2	610
J3:3/1	161
J3:3/2	422
J3:4/1	188
J3:4/2	188

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Barlow Moor Road-Princess Road								
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 (Princess Road North)	5.00	0.00	Y	Arm J1:8 Left	18.00	100.0 %	1952	1952
J1:1/2 (Princess Road North)	3.60	0.00	Y	Arm J1:9 Ahead	Inf	100.0 %	1975	1975
J1:1/3 (Princess Road North)	3.60	0.00	N	Arm J1:9 Ahead	Inf	100.0 %	2115	2115
J1:1/4 (Princess Road North)	3.60	0.00	N	Arm J1:5 Right Arm J1:9 Ahead	45.00 Inf	16.0 % 84.0 %	2104	2104
J1:2/1 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/2 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/3 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:2/4 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:3/1	3.50	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1965	1965
J1:3/2	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/3	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/4	3.50	0.00	N	Arm J1:4 Right	24.00	100.0 %	1981	1981
J1:4/1 (Eastbound Internal Link)	3.30	0.00	Y	Arm J1:8 Ahead	Inf	100.0 %	1945	1945
J1:4/2 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:8 Ahead	Inf	100.0 %	2085	2085
J1:4/3 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:9 Right	25.00	100.0 %	1967	1967
J1:5/1 (Westbound Internal Link)	3.30	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1945	1945
J1:5/2 (Westbound Internal Link)	3.30	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2085	2085
J1:5/3 (Westbound Internal Link)	3.30	0.00	N	Arm J1:7 Right	33.00	100.0 %	1994	1994
J1:6/1 (Barlow Moor Road West)	5.00	0.00	Y	Arm J1:7 Left	40.00	100.0 %	2039	2039
J1:6/2 (Barlow Moor Road West)	3.50	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1965	1965
J1:6/3 (Barlow Moor Road West)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:7/2	Infinite Saturation Flow						Inf	Inf
J1:7/3	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf
J1:8/2	Infinite Saturation Flow						Inf	Inf
J1:9/1	Infinite Saturation Flow						Inf	Inf

J1:9/2	Infinite Saturation Flow	Inf	Inf
J1:9/3	Infinite Saturation Flow	Inf	Inf

Junction: J2: Unnamed Junction

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	Infinite Saturation Flow						Inf	Inf
J2:1/2	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/3	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/4	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:2/4	Infinite Saturation Flow						Inf	Inf
J2:3/1	3.25	0.00	Y	Arm J3:3 Ahead	3.70	100.0 %	1380	1380
J2:3/2	3.70	0.00	Y	Arm J3:3 Ahead	Inf	100.0 %	1985	1985
J2:4/1	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985
J2:4/2	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985

Junction: J3: Unnamed Junction

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1	3.30	0.00	Y	Arm J1:6 Ahead	Inf	100.0 %	1945	1945
J3:1/2	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:1/3	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:2/2	Infinite Saturation Flow						Inf	Inf
J3:3/1	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:3/2	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:4/1	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965
J3:4/2	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965

Scenario 6: 'PM Base + D1 + Meanwhile Use' (FG6: 'PM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	147	2348	82	2577
	B	170	0	633	238	1041
	C	1941	342	0	537	2820
	D	99	231	666	0	996
	Tot.	2210	720	3647	857	7434

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: PM Base + D1 + Meanwhile Use
Junction: J1: Barlow Moor Road-Princess Road	
J1:1/1 (short)	147
J1:1/2 (with short)	819(In) 672(Out)
J1:1/3	880
J1:1/4	878
J1:2/1 (short)	341
J1:2/2 (with short)	633(In) 292(Out)
J1:2/3 (short)	122
J1:2/4 (with short)	408(In) 286(Out)
J1:3/1	702
J1:3/2	734
J1:3/3 (with short)	847(In) 505(Out)
J1:3/4 (short)	342
J1:4/1	271
J1:4/2	302
J1:4/3	66
J1:5/1	162
J1:5/2	158
J1:5/3	170
J1:6/1 (short)	99
J1:6/2 (with short)	205(In) 106(Out)
J1:6/3	191
J1:7/1	820
J1:7/2	852
J1:7/3	538
J1:8/1	344
J1:8/2	376
J1:9/1	1013
J1:9/2	1059
J1:9/3	975
Junction: J2: Unnamed Junction	
J2:1/1	537
J2:1/2	702
J2:1/3	734
J2:1/4	847

Full Input Data And Results

J2:2/1	1013
J2:2/2	2034
J2:2/3	300
J2:2/4	300
J2:3/1	139
J2:3/2	398
J2:4/1	300
J2:4/2	300
Junction: J3: Unnamed Junction	
J3:1/1	396
J3:1/2 (with short)	600(In) 300(Out)
J3:1/3 (short)	300
J3:2/1	301
J3:2/2	556
J3:3/1	139
J3:3/2	398
J3:4/1	162
J3:4/2	158

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Barlow Moor Road-Princess Road								
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 (Princess Road North)	5.00	0.00	Y	Arm J1:8 Left	18.00	100.0 %	1952	1952
J1:1/2 (Princess Road North)	3.60	0.00	Y	Arm J1:9 Ahead	Inf	100.0 %	1975	1975
J1:1/3 (Princess Road North)	3.60	0.00	N	Arm J1:9 Ahead	Inf	100.0 %	2115	2115
J1:1/4 (Princess Road North)	3.60	0.00	N	Arm J1:5 Right Arm J1:9 Ahead	45.00 Inf	9.3 % 90.7 %	2108	2108
J1:2/1 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/2 (Barlow Moor Road East)	3.00	0.00	Y	Arm J1:9 Left	80.00	100.0 %	1880	1880
J1:2/3 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:2/4 (Barlow Moor Road East)	3.60	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1975	1975
J1:3/1	3.50	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1965	1965
J1:3/2	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/3	3.50	0.00	N	Arm J1:7 Ahead	Inf	100.0 %	2105	2105
J1:3/4	3.50	0.00	N	Arm J1:4 Right	24.00	100.0 %	1981	1981
J1:4/1 (Eastbound Internal Link)	3.30	0.00	Y	Arm J1:8 Ahead	Inf	100.0 %	1945	1945
J1:4/2 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:8 Ahead	Inf	100.0 %	2085	2085
J1:4/3 (Eastbound Internal Link)	3.30	0.00	N	Arm J1:9 Right	25.00	100.0 %	1967	1967
J1:5/1 (Westbound Internal Link)	3.30	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	1945	1945
J1:5/2 (Westbound Internal Link)	3.30	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2085	2085
J1:5/3 (Westbound Internal Link)	3.30	0.00	N	Arm J1:7 Right	33.00	100.0 %	1994	1994
J1:6/1 (Barlow Moor Road West)	5.00	0.00	Y	Arm J1:7 Left	40.00	100.0 %	2039	2039
J1:6/2 (Barlow Moor Road West)	3.50	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1965	1965
J1:6/3 (Barlow Moor Road West)	3.50	0.00	N	Arm J1:4 Ahead	Inf	100.0 %	2105	2105
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:7/2	Infinite Saturation Flow						Inf	Inf
J1:7/3	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf
J1:8/2	Infinite Saturation Flow						Inf	Inf
J1:9/1	Infinite Saturation Flow						Inf	Inf

J1:9/2	Infinite Saturation Flow	Inf	Inf
J1:9/3	Infinite Saturation Flow	Inf	Inf

Junction: J2: Unnamed Junction

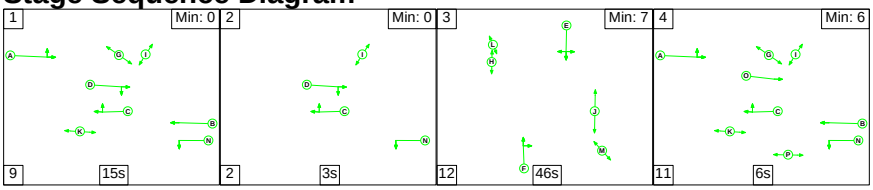
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1	Infinite Saturation Flow						Inf	Inf
J2:1/2	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/3	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:1/4	4.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	2015	2015
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:2/4	Infinite Saturation Flow						Inf	Inf
J2:3/1	3.25	0.00	Y	Arm J3:3 Ahead	3.70	100.0 %	1380	1380
J2:3/2	3.70	0.00	Y	Arm J3:3 Ahead	Inf	100.0 %	1985	1985
J2:4/1	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985
J2:4/2	3.70	0.00	Y	Arm J2:2 Right	Inf	100.0 %	1985	1985

Junction: J3: Unnamed Junction

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1	3.30	0.00	Y	Arm J1:6 Ahead	Inf	100.0 %	1945	1945
J3:1/2	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:1/3	3.30	0.00	Y	Arm J2:4 Ahead	62.00	100.0 %	1899	1899
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:2/2	Infinite Saturation Flow						Inf	Inf
J3:3/1	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:3/2	3.60	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1975	1975
J3:4/1	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965
J3:4/2	3.50	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1965	1965

Scenario 1: 'AM Base' (FG1: 'AM Base', Plan 1: 'Network Control Plan 1')
C1

Stage Sequence Diagram

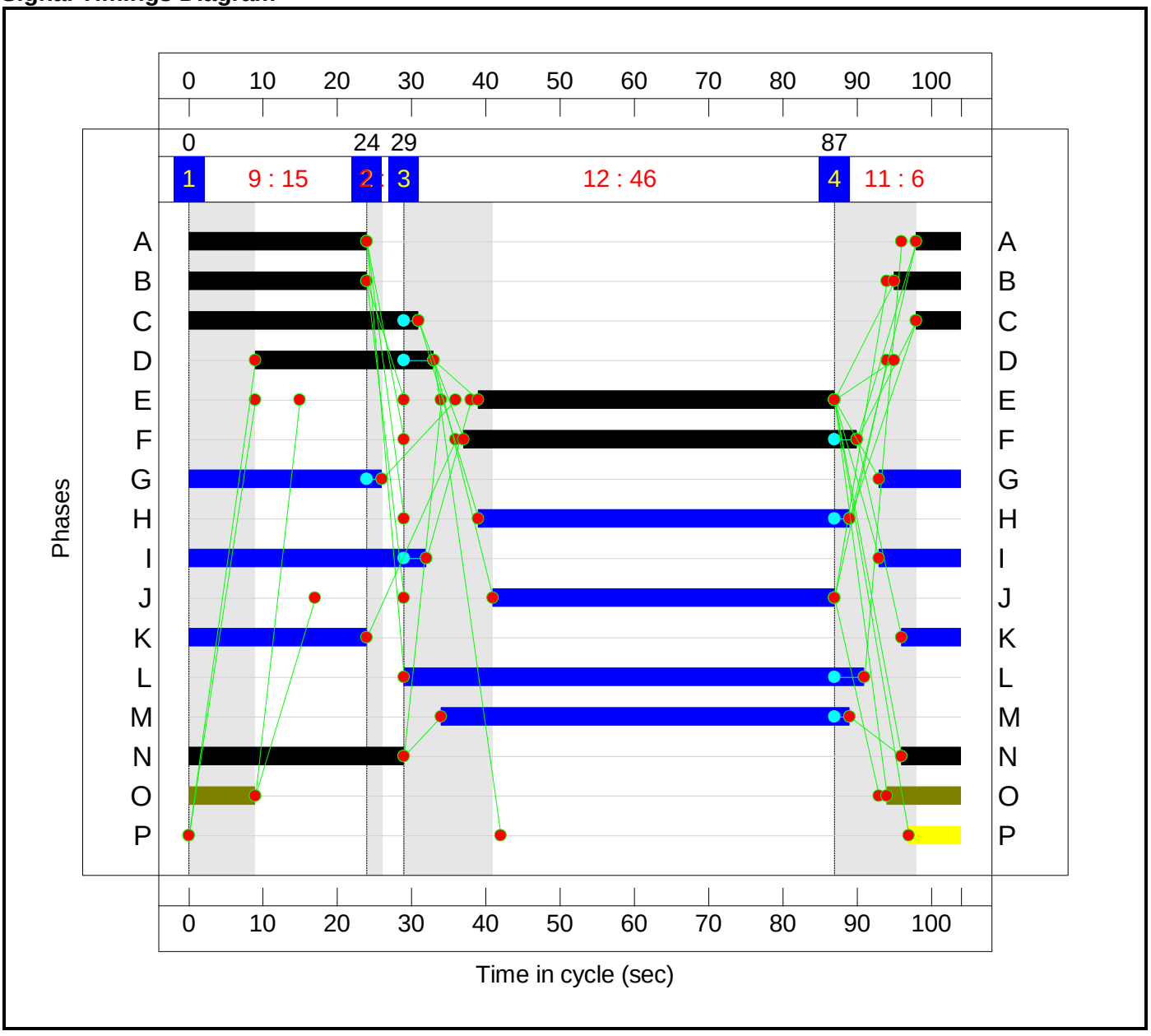


Full Input Data And Results

Stage Timings

Stage	1	2	3	4
Duration	15	3	46	6
Change Point	0	24	29	87

Signal Timings Diagram

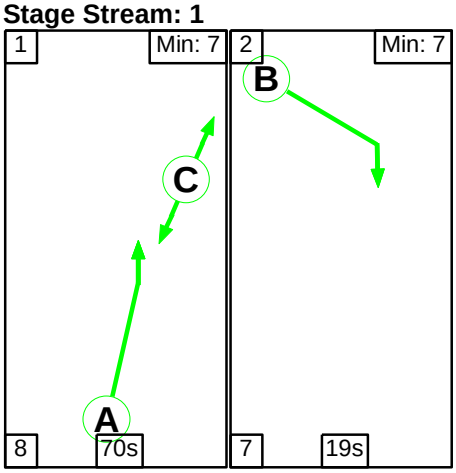


Full Input Data And Results

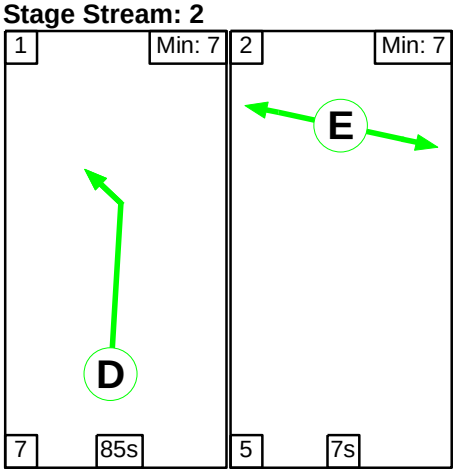
C2

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

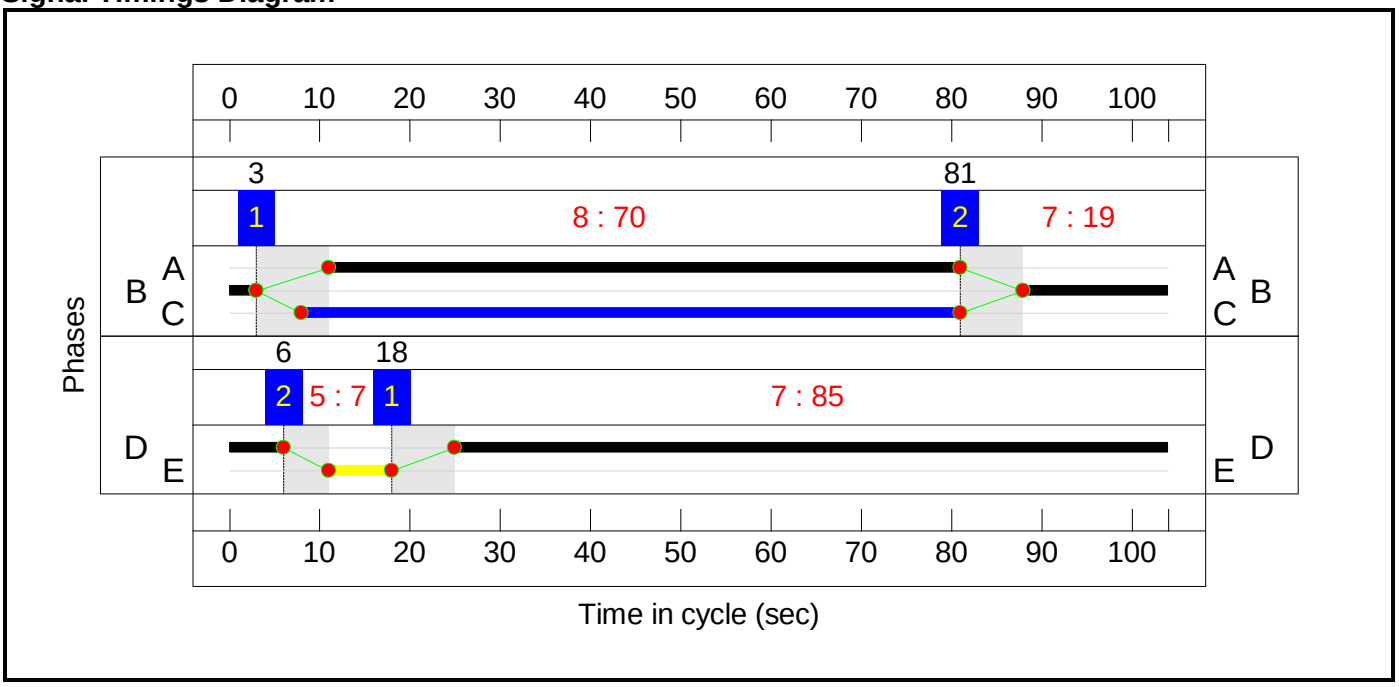
Stage	1	2
Duration	70	19
Change Point	3	81

Stage Stream: 2

Stage	1	2
Duration	85	7
Change Point	18	6

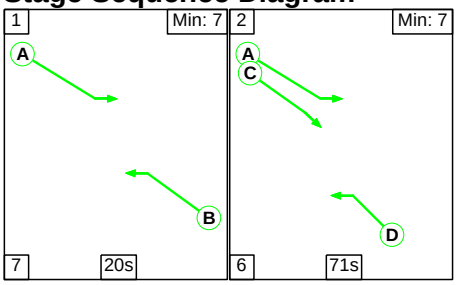
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

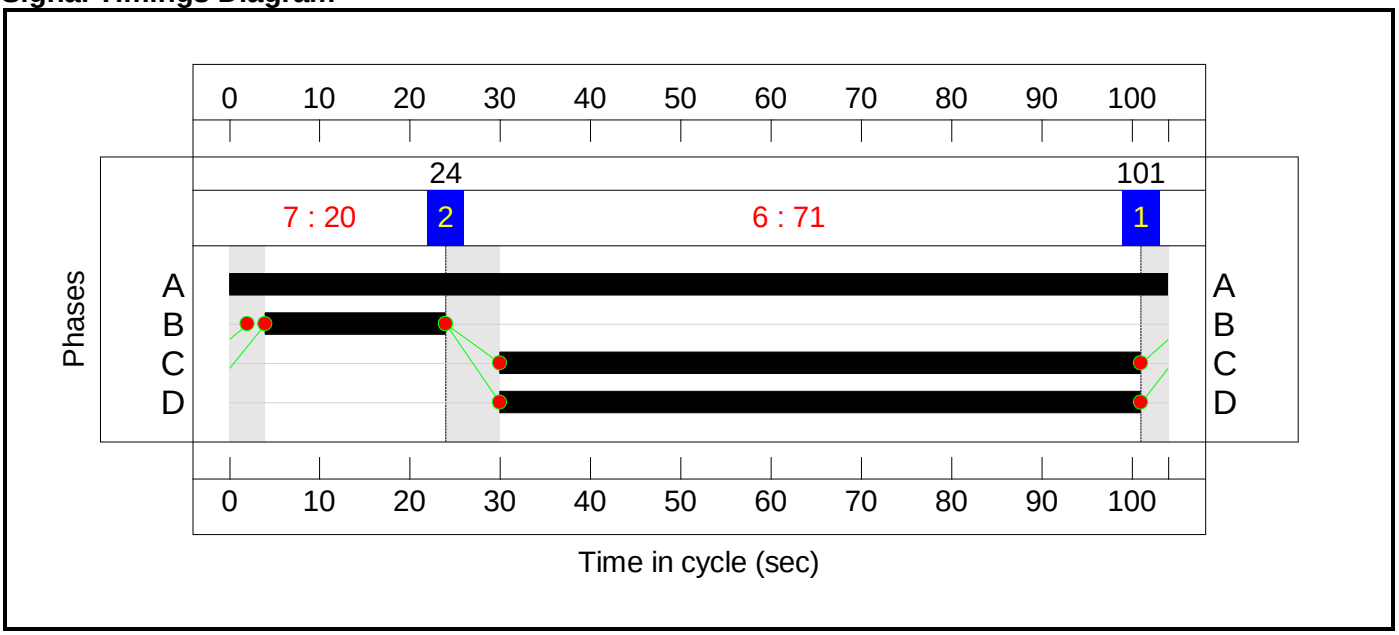


Stage Timings

Stage	1	2
Duration	20	71
Change Point	101	24

Full Input Data And Results

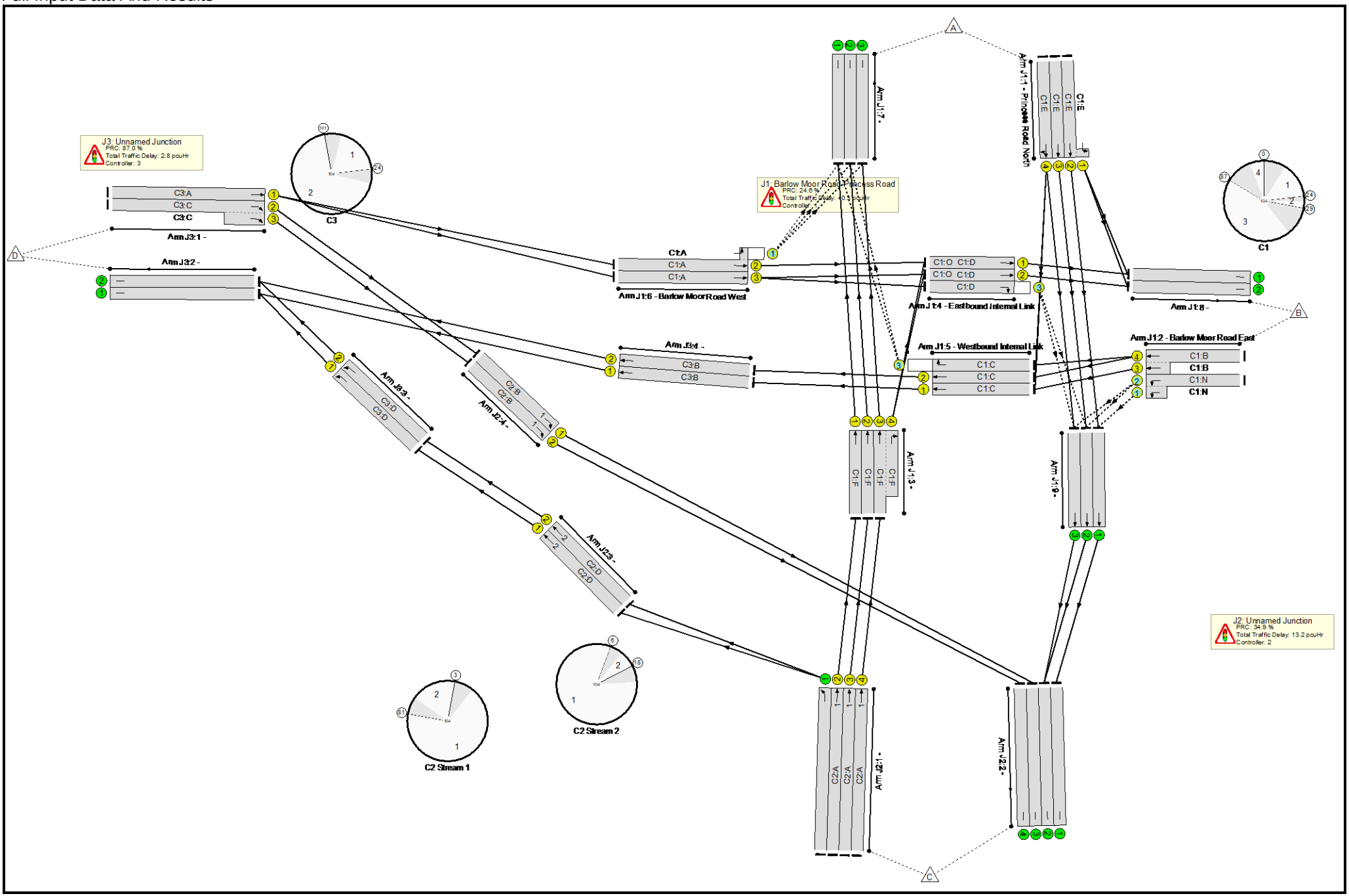
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**72.3%**
J1: Barlow Moor Road-Princess Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**72.3%**
1/2+1/1	Princess Road North Left Ahead	U	N/A	N/A	C1:E		1	48	-	667	1975:1952	746+188	71.4 : 71.4%
1/3	Princess Road North Ahead	U	N/A	N/A	C1:E		1	48	-	720	2115	996	72.3%
1/4	Princess Road North Right Ahead	U	N/A	N/A	C1:E		1	48	-	714	2104	991	72.0%
2/2+2/1	Barlow Moor Road East Left	O	N/A	N/A	C1:N		1	37	-	509	1880:1880	311+402	71.4 : 71.4%
2/4+2/3	Barlow Moor Road East Ahead	U	N/A	N/A	C1:B		1	33	-	412	1975:1975	489+210	58.9 : 58.9%
3/1	Ahead	U	N/A	N/A	C1:F		1	53	-	721	1965	1020	70.7%
3/2	Ahead	U	N/A	N/A	C1:F		1	53	-	758	2105	1093	69.4%
3/3+3/4	Right Ahead	U	N/A	N/A	C1:F		1	53	-	918	2105:1981	846+505	67.9 : 67.9%
4/1	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	43	19	302	1945	823	36.7%
4/2	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	43	19	306	2085	882	34.7%
4/3	Eastbound Internal Link Right	O	N/A	N/A	C1:D		1	24	-	88	1967	318	27.6%
5/1	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	37	-	183	1945	711	25.8%
5/2	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	37	-	191	2085	762	25.1%

Full Input Data And Results

5/3	Westbound Internal Link Right	O	N/A	N/A	C1:C		1	37	-	154	1994	361	42.7%
6/2+6/1	Barlow Moor Road West Ahead Left	U+O	N/A	N/A	C1:A		1	30	-	228	1965:2039	360+239	38.0 : 38.0%
6/3	Barlow Moor Road West Ahead	U	N/A	N/A	C1:A		1	30	-	216	2105	627	34.4%
7/1		U	N/A	N/A	-		-	-	-	828	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	865	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	606	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
9/2	Ahead	U	N/A	N/A	-		-	-	-	875	Inf	Inf	0.0%
9/3	Ahead	U	N/A	N/A	-		-	-	-	753	Inf	Inf	0.0%
J2: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**66.7%**
1/1	Left	U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%
1/2	Ahead	U	2:1	N/A	C2:A		1	70	-	721	2015	1376	52.4%
1/3	Ahead	U	2:1	N/A	C2:A		1	70	-	758	2015	1376	55.1%
1/4	Ahead	U	2:1	N/A	C2:A		1	70	-	918	2015	1376	66.7%
2/1		U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	1628	Inf	Inf	0.0%
2/3		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
2/4		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
3/1	Ahead	U	2:2	N/A	C2:D		1	85	-	162	1380	1141	14.2%
3/2	Ahead	U	2:2	N/A	C2:D		1	85	-	421	1985	1641	25.6%
4/1	Right	U	2:1	N/A	C2:B		1	19	-	252	1985	382	66.0%
4/2	Right	U	2:1	N/A	C2:B		1	19	-	252	1985	382	66.0%
J3: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**48.1%**

Full Input Data And Results

1/1	Ahead	U	N/A	N/A	C3:A		1	104	-	444	1945	1945	22.8%
1/2+1/3	Ahead	U	N/A	N/A	C3:C		1	71	-	504	1899:1899	748+748	33.7 : 33.7%
2/1		U	N/A	N/A	-		-	-	-	345	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	612	Inf	Inf	0.0%
3/1	Ahead	U	N/A	N/A	C3:D		1	71	-	162	1975	1367	11.8%
3/2	Ahead	U	N/A	N/A	C3:D		1	71	-	421	1975	1367	30.8%
4/1	Ahead	U	N/A	N/A	C3:B		1	20	-	183	1965	397	46.1%
4/2	Ahead	U	N/A	N/A	C3:B		1	20	-	191	1965	397	48.1%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**505**	**844**	**2**	**47.5**	**8.6**	**0.3**	**56.3**	**-**	**-**	**-**	**-**
J1: Barlow Moor Road-Princess Road	**-**	**-**	**505**	**844**	**2**	**34.2**	**5.8**	**0.3**	**40.3**	**-**	**-**	**-**	**-**
1/2+1/1	667	667	-	-	-	4.0	1.2	-	5.3	28.4	14.9	1.2	16.2
1/3	720	720	-	-	-	4.4	1.3	-	5.7	28.5	16.6	1.3	17.9
1/4	714	714	-	-	-	4.4	1.3	-	5.6	28.4	16.5	1.3	17.7
2/2+2/1	509	509	186	832	0	3.7	1.2	-	4.9	34.6	9.9	1.2	11.1
2/4+2/3	412	412	-	-	-	3.2	0.7	-	3.9	34.1	8.3	0.7	9.0
3/1	721	721	-	-	-	2.2	0.0	-	2.2	10.8	15.6	0.0	15.6
3/2	758	758	-	-	-	2.2	0.0	-	2.2	10.4	16.4	0.0	16.4
3/3+3/4	918	918	-	-	-	1.6	0.0	-	1.6	6.2	10.8	0.0	10.8
4/1	302	302	-	-	-	1.8	0.0	-	1.8	21.5	5.0	0.0	5.0
4/2	306	306	-	-	-	1.9	0.0	-	1.9	22.9	5.3	0.0	5.3
4/3	88	88	84	4	0	0.1	0.0	0.0	0.2	7.5	2.1	0.0	2.1
5/1	183	183	-	-	-	0.6	0.0	-	0.6	12.0	2.8	0.0	2.8
5/2	191	191	-	-	-	0.6	0.0	-	0.6	10.9	1.9	0.0	1.9
5/3	154	154	145	7	2	0.0	0.0	0.3	0.3	6.3	0.0	0.0	0.0
6/2+6/1	228	228	91	0	0	1.8	0.0	0.0	1.8	28.6	5.0	0.0	5.0
6/3	216	216	-	-	-	1.7	0.0	-	1.7	28.6	4.9	0.0	4.9
7/1	828	828	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	865	865	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	606	606	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	875	875	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

9/3	753	753	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**10.8**	**2.4**	**0.0**	**13.2**	**-**	**-**	**-**	**-**
1/1	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	721	721	-	-	-	1.6	0.5	-	2.2	10.9	10.2	0.5	10.8
1/3	758	758	-	-	-	1.8	0.6	-	2.4	11.3	10.9	0.6	11.6
1/4	918	918	-	-	-	2.5	1.0	-	3.5	13.5	15.3	1.0	16.3
2/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	1628	1628	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/4	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	162	162	-	-	-	0.1	0.1	-	0.2	3.6	0.9	0.1	1.0
3/2	421	421	-	-	-	0.2	0.2	-	0.4	3.5	2.6	0.2	2.7
4/1	252	252	-	-	-	2.3	0.0	-	2.3	33.2	6.7	0.0	6.7
4/2	252	252	-	-	-	2.3	0.0	-	2.3	33.2	6.7	0.0	6.7
J3: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**2.4**	**0.4**	**0.0**	**2.8**	**-**	**-**	**-**	**-**
1/1	444	444	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2+1/3	504	504	-	-	-	0.8	0.3	-	1.0	7.5	2.5	0.3	2.8
2/1	345	345	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	612	612	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	162	162	-	-	-	0.2	0.0	-	0.2	4.3	0.9	0.0	0.9
3/2	421	421	-	-	-	0.5	0.0	-	0.5	4.6	2.5	0.0	2.5
4/1	183	183	-	-	-	0.4	0.0	-	0.4	8.6	3.5	0.0	3.5
4/2	191	191	-	-	-	0.5	0.0	-	0.5	8.7	3.5	0.0	3.5

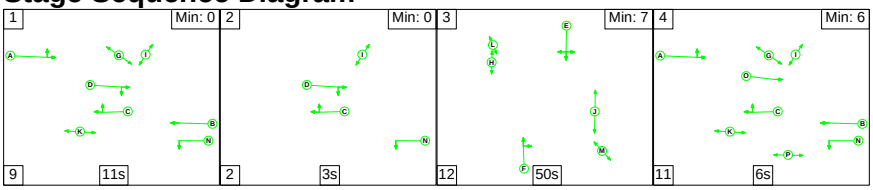
C1		PRC for Signalled Lanes (%):	24.6	Total Delay for Signalled Lanes (pcuHr):	40.27	Cycle Time (s): 104
C2	Stream: 1	PRC for Signalled Lanes (%):	34.9	Total Delay for Signalled Lanes (pcuHr):	12.66	Cycle Time (s): 104
C2	Stream: 2	PRC for Signalled Lanes (%):	250.9	Total Delay for Signalled Lanes (pcuHr):	0.57	Cycle Time (s): 104
C3		PRC for Signalled Lanes (%):	87.0	Total Delay for Signalled Lanes (pcuHr):	2.83	Cycle Time (s): 104
		PRC Over All Lanes (%):	24.6	Total Delay Over All Lanes(pcuHr):	56.32	

Full Input Data And Results

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

C1

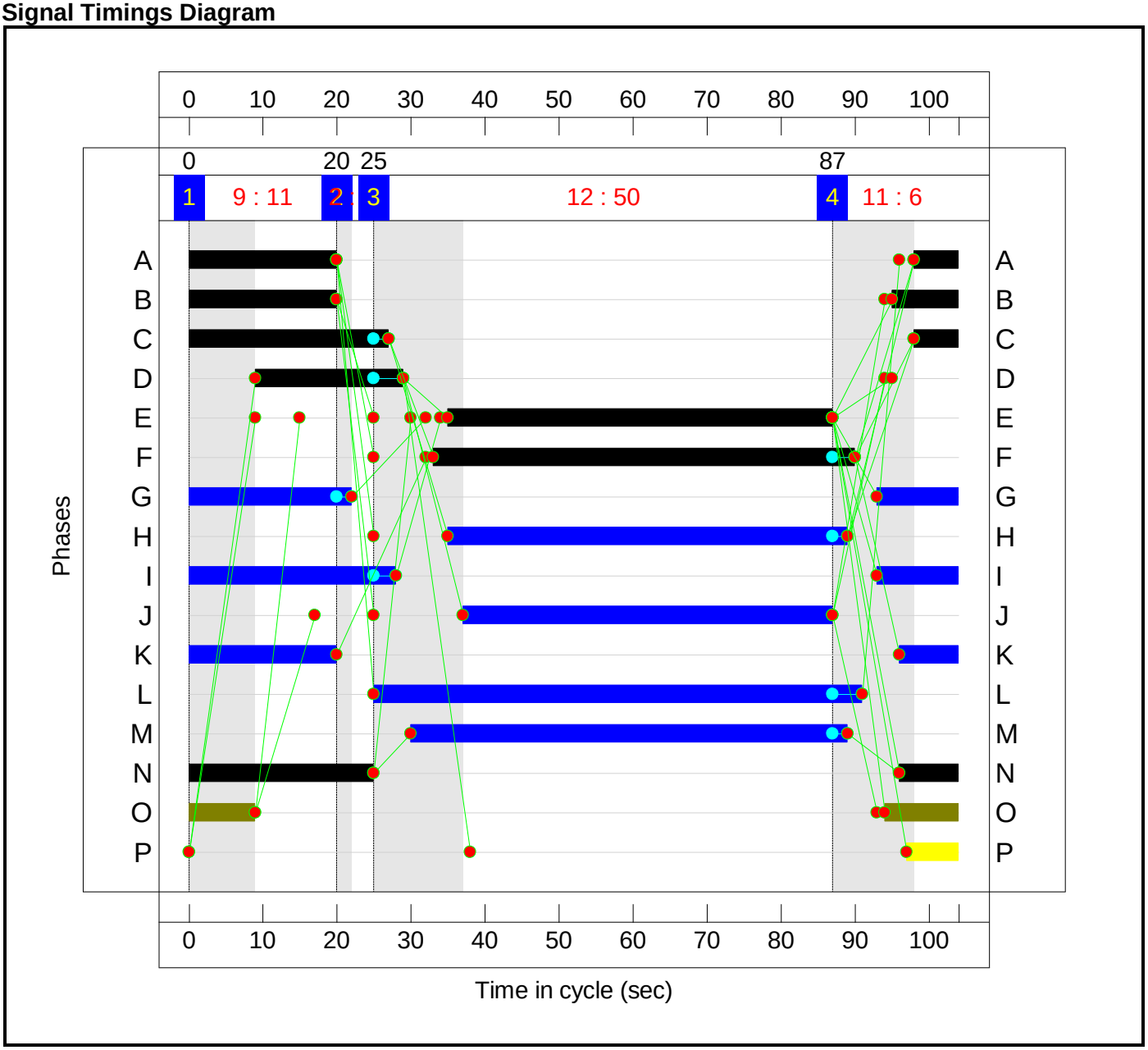
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	11	3	50	6
Change Point	0	20	25	87

Signal Timings Diagram

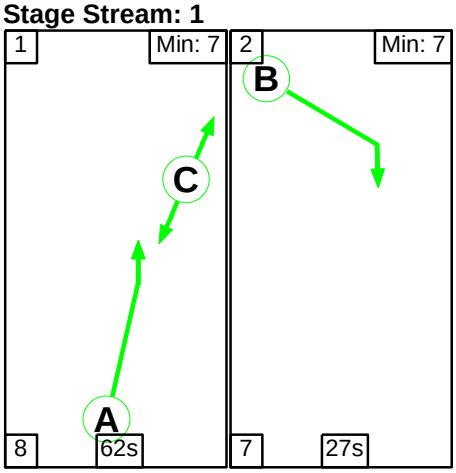


Full Input Data And Results

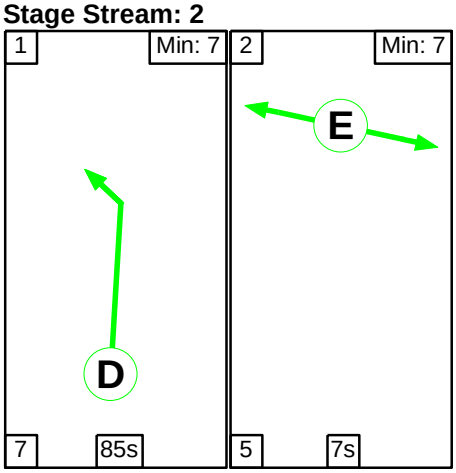
C2

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

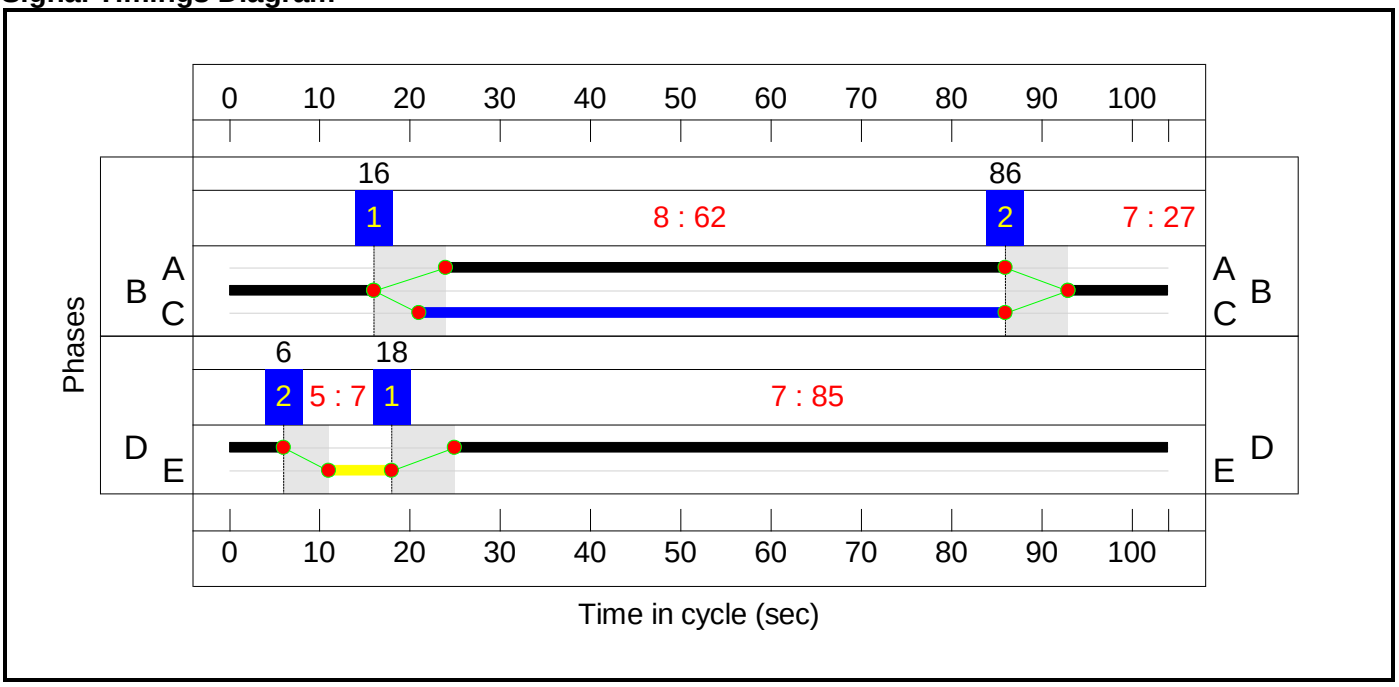
Stage	1	2
Duration	62	27
Change Point	16	86

Stage Stream: 2

Stage	1	2
Duration	85	7
Change Point	18	6

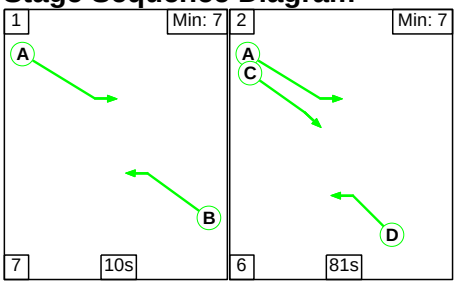
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

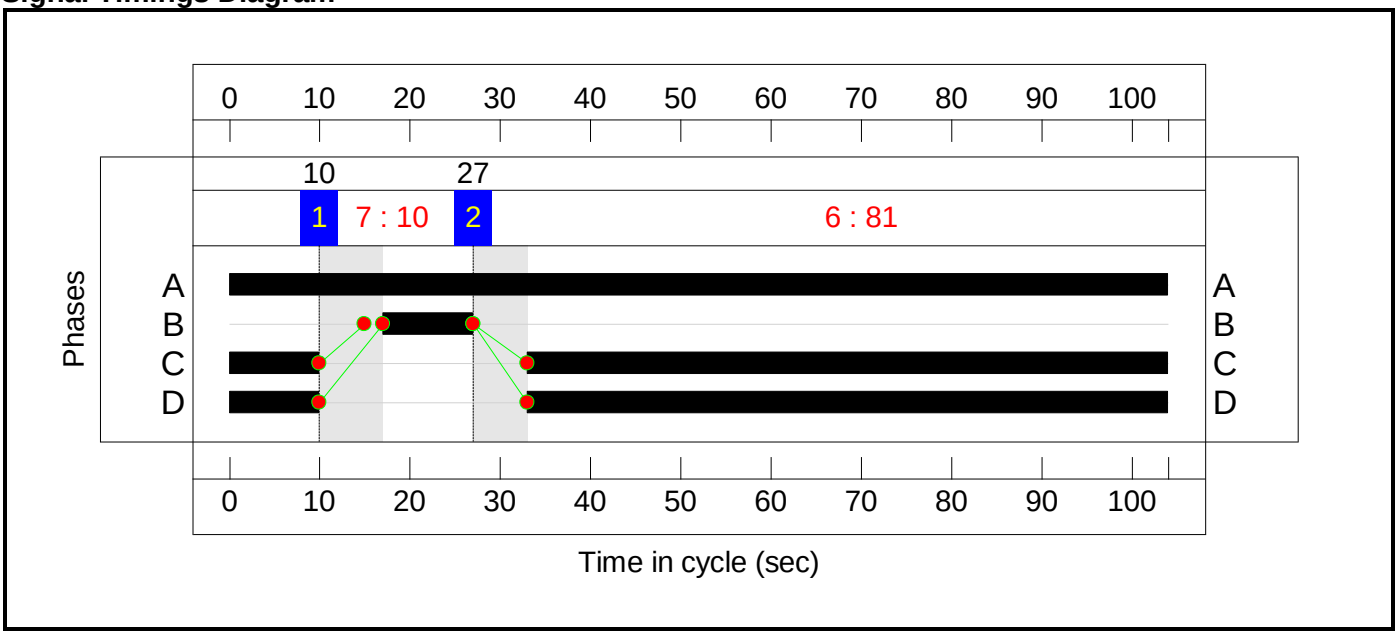


Stage Timings

Stage	1	2
Duration	10	81
Change Point	10	27

Full Input Data And Results

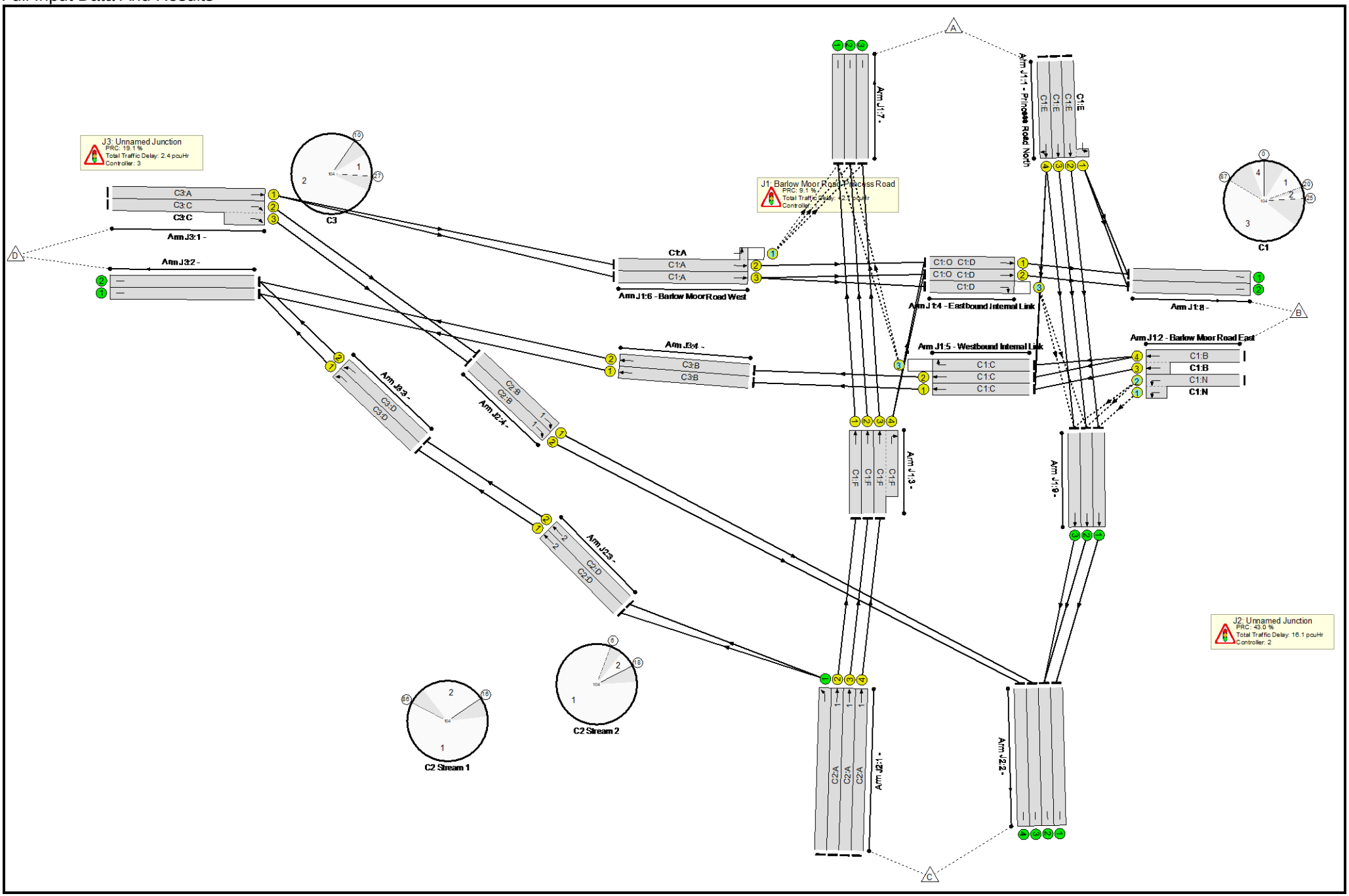
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.5%**
J1: Barlow Moor Road-Princess Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.5%**
1/2+1/1	Princess Road North Left Ahead	U	N/A	N/A	C1:E		1	52	-	816	1975:1952	832+177	80.9 : 80.9%
1/3	Princess Road North Ahead	U	N/A	N/A	C1:E		1	52	-	881	2115	1078	81.7%
1/4	Princess Road North Right Ahead	U	N/A	N/A	C1:E		1	52	-	876	2108	1074	81.5%
2/2+2/1	Barlow Moor Road East Left	O	N/A	N/A	C1:N		1	33	-	545	1880:1880	293+367	82.5 : 82.5%
2/4+2/3	Barlow Moor Road East Ahead	U	N/A	N/A	C1:B		1	29	-	366	1975:1975	424+204	58.2 : 58.2%
3/1	Ahead	U	N/A	N/A	C1:F		1	57	-	749	1965	1096	68.3%
3/2	Ahead	U	N/A	N/A	C1:F		1	57	-	753	2105	1174	64.1%
3/3+3/4	Right Ahead	U	N/A	N/A	C1:F		1	57	-	768	2105:1981	856+641	51.3 : 51.3%
4/1	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	39	19	264	1945	748	35.3%
4/2	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	39	19	294	2085	802	36.7%
4/3	Eastbound Internal Link Right	O	N/A	N/A	C1:D		1	20	-	66	1967	286	23.1%
5/1	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	33	-	157	1945	636	24.7%
5/2	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	33	-	150	2085	682	22.0%

Full Input Data And Results

5/3	Westbound Internal Link Right	O	N/A	N/A	C1:C		1	33	-	141	1994	337	41.8%
6/2+6/1	Barlow Moor Road West Ahead Left	U+O	N/A	N/A	C1:A		1	26	-	204	1965:2039	245+231	42.9 : 42.9%
6/3	Barlow Moor Road West Ahead	U	N/A	N/A	C1:A		1	26	-	190	2105	546	34.8%
7/1		U	N/A	N/A	-		-	-	-	852	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	857	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	472	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	335	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	366	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	976	Inf	Inf	0.0%
9/2	Ahead	U	N/A	N/A	-		-	-	-	1035	Inf	Inf	0.0%
9/3	Ahead	U	N/A	N/A	-		-	-	-	948	Inf	Inf	0.0%
J2: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**62.9%**
1/1	Left	U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
1/2	Ahead	U	2:1	N/A	C2:A		1	62	-	749	2015	1221	61.4%
1/3	Ahead	U	2:1	N/A	C2:A		1	62	-	753	2015	1221	61.7%
1/4	Ahead	U	2:1	N/A	C2:A		1	62	-	768	2015	1221	62.9%
2/1		U	N/A	N/A	-		-	-	-	976	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	1983	Inf	Inf	0.0%
2/3		U	N/A	N/A	-		-	-	-	300	Inf	Inf	0.0%
2/4		U	N/A	N/A	-		-	-	-	300	Inf	Inf	0.0%
3/1	Ahead	U	2:2	N/A	C2:D		1	85	-	122	1380	1141	10.7%
3/2	Ahead	U	2:2	N/A	C2:D		1	85	-	415	1985	1641	25.3%
4/1	Right	U	2:1	N/A	C2:B		1	27	-	300	1985	534	56.1%
4/2	Right	U	2:1	N/A	C2:B		1	27	-	300	1985	534	56.1%
J3: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.5%**

Full Input Data And Results

1/1	Ahead	U	N/A	N/A	C3:A		1	104	-	394	1945	1945	20.3%
1/2+1/3	Ahead	U	N/A	N/A	C3:C		1	81	-	600	1899:1899	840+840	35.7 : 35.7%
2/1		U	N/A	N/A	-		-	-	-	279	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	565	Inf	Inf	0.0%
3/1	Ahead	U	N/A	N/A	C3:D		1	81	-	122	1975	1557	7.8%
3/2	Ahead	U	N/A	N/A	C3:D		1	81	-	415	1975	1557	26.7%
4/1	Ahead	U	N/A	N/A	C3:B		1	10	-	157	1965	208	75.5%
4/2	Ahead	U	N/A	N/A	C3:B		1	10	-	150	1965	208	72.2%

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	**-**	**-**	**535**	**860**	**2**	**48.5**	**12.5**	**0.3**	**61.2**	**-**	**-**	**-**	**-**
J1: Barlow Moor Road-Princess Road	**-**	**-**	**535**	**860**	**2**	**33.1**	**9.4**	**0.3**	**42.7**	**-**	**-**	**-**	**-**
1/2+1/1	816	816	-	-	-	4.8	2.1	-	6.9	30.3	19.3	2.1	21.4
1/3	881	881	-	-	-	5.2	2.2	-	7.4	30.4	21.3	2.2	23.5
1/4	876	876	-	-	-	5.2	2.2	-	7.4	30.3	21.2	2.2	23.3
2/2+2/1	545	545	240	850	0	4.5	2.3	-	6.8	45.0	11.9	2.3	14.1
2/4+2/3	366	366	-	-	-	3.1	0.7	-	3.8	37.1	7.4	0.7	8.1
3/1	749	749	-	-	-	0.8	0.0	-	0.8	3.9	6.0	0.0	6.0
3/2	753	753	-	-	-	0.8	0.0	-	0.8	3.9	3.0	0.0	3.0
3/3+3/4	768	768	-	-	-	0.8	0.0	-	0.8	3.8	1.1	0.0	1.1
4/1	264	264	-	-	-	1.6	0.0	-	1.6	22.2	4.6	0.0	4.6
4/2	294	294	-	-	-	1.7	0.0	-	1.7	21.4	4.9	0.0	4.9
4/3	66	66	63	3	0	0.1	0.0	0.0	0.1	7.3	1.6	0.0	1.6
5/1	157	157	-	-	-	0.4	0.0	-	0.4	9.0	1.7	0.0	1.7
5/2	150	150	-	-	-	0.5	0.0	-	0.5	10.8	1.4	0.0	1.4
5/3	141	141	133	7	2	0.0	0.0	0.2	0.2	6.2	0.2	0.0	0.2
6/2+6/1	204	204	99	0	0	1.8	0.0	0.0	1.8	31.4	4.6	0.0	4.6
6/3	190	190	-	-	-	1.7	0.0	-	1.7	31.3	4.4	0.0	4.4
7/1	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	472	472	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	335	335	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	366	366	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	976	976	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	1035	1035	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

9/3	948	948	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**13.4**	**2.7**	**0.0**	**16.1**	**-**	**-**	**-**	**-**
1/1	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	749	749	-	-	-	2.7	0.8	-	3.5	16.7	13.5	0.8	14.3
1/3	753	753	-	-	-	2.7	0.8	-	3.5	16.7	13.6	0.8	14.4
1/4	768	768	-	-	-	2.8	0.8	-	3.6	17.0	14.1	0.8	14.9
2/1	976	976	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	1983	1983	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	300	300	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/4	300	300	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	122	122	-	-	-	0.1	0.1	-	0.1	3.5	0.6	0.1	0.7
3/2	415	415	-	-	-	0.2	0.2	-	0.4	3.4	2.5	0.2	2.7
4/1	300	300	-	-	-	2.5	0.0	-	2.5	30.0	7.4	0.0	7.4
4/2	300	300	-	-	-	2.5	0.0	-	2.5	30.0	7.4	0.0	7.4
J3: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**2.0**	**0.4**	**0.0**	**2.4**	**-**	**-**	**-**	**-**
1/1	394	394	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2+1/3	600	600	-	-	-	0.5	0.3	-	0.7	4.4	2.2	0.3	2.4
2/1	279	279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	565	565	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	122	122	-	-	-	0.0	0.0	-	0.0	1.2	0.2	0.0	0.2
3/2	415	415	-	-	-	0.1	0.0	-	0.1	1.2	1.2	0.0	1.2
4/1	157	157	-	-	-	0.7	0.0	-	0.7	15.9	4.4	0.0	4.4
4/2	150	150	-	-	-	0.6	0.0	-	0.6	15.4	4.2	0.0	4.2

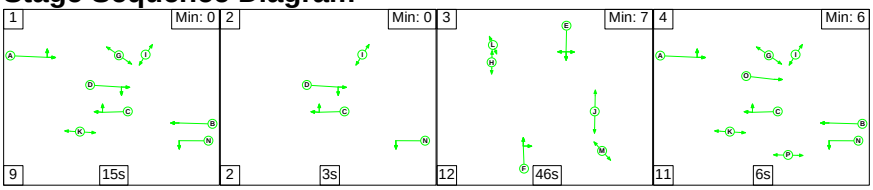
C1		PRC for Signalled Lanes (%):	9.1	Total Delay for Signalled Lanes (pcuHr):	42.71	Cycle Time (s): 104
C2	Stream: 1	PRC for Signalled Lanes (%):	43.0	Total Delay for Signalled Lanes (pcuHr):	15.59	Cycle Time (s): 104
C2	Stream: 2	PRC for Signalled Lanes (%):	256.0	Total Delay for Signalled Lanes (pcuHr):	0.51	Cycle Time (s): 104
C3		PRC for Signalled Lanes (%):	19.1	Total Delay for Signalled Lanes (pcuHr):	2.39	Cycle Time (s): 104
		PRC Over All Lanes (%):	9.1	Total Delay Over All Lanes(pcuHr):	61.21	

Full Input Data And Results

Scenario 3: 'AM Base + D1' (FG3: 'AM Base + D1', Plan 1: 'Network Control Plan 1')

C1

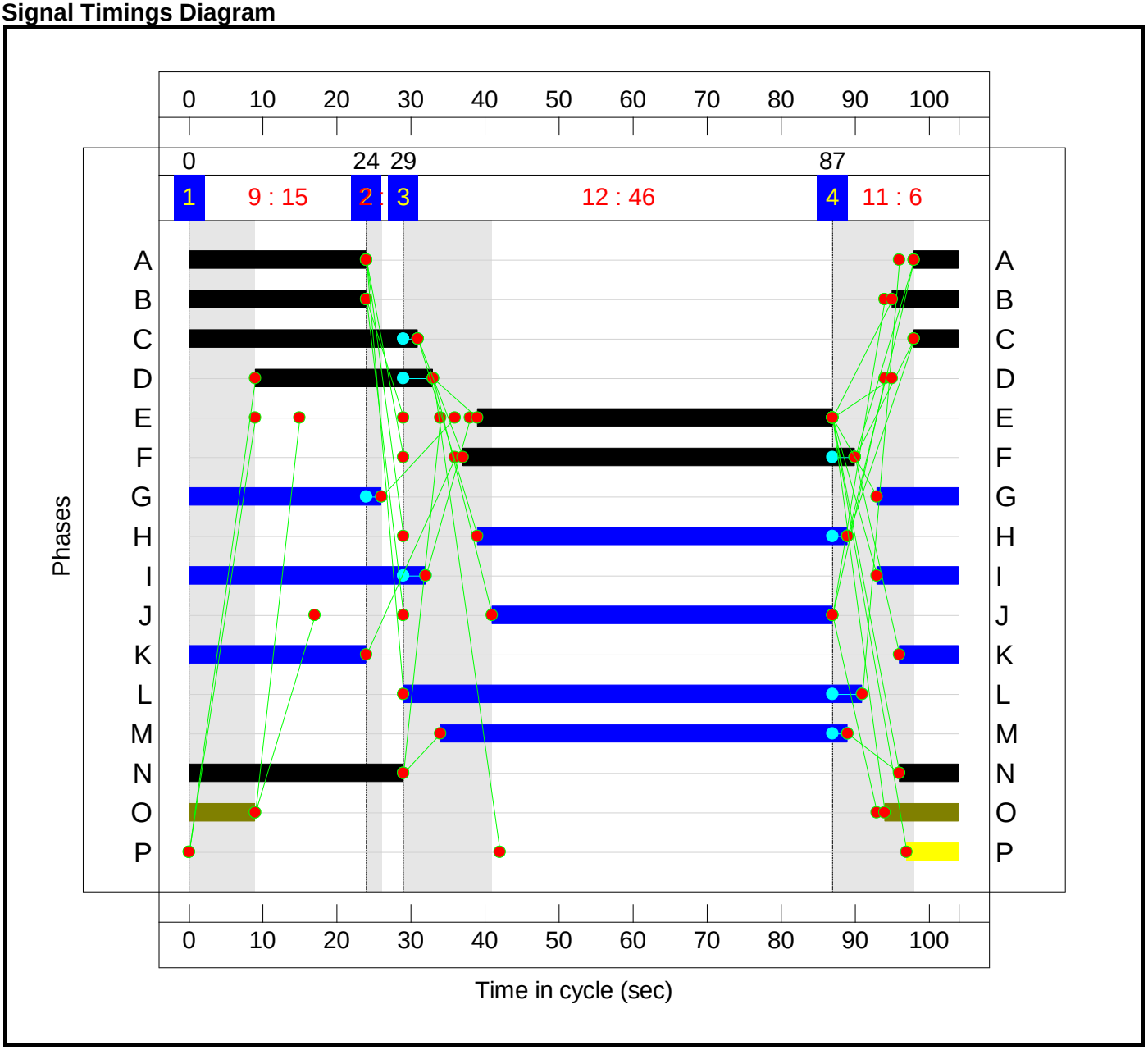
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	15	3	46	6
Change Point	0	24	29	87

Signal Timings Diagram

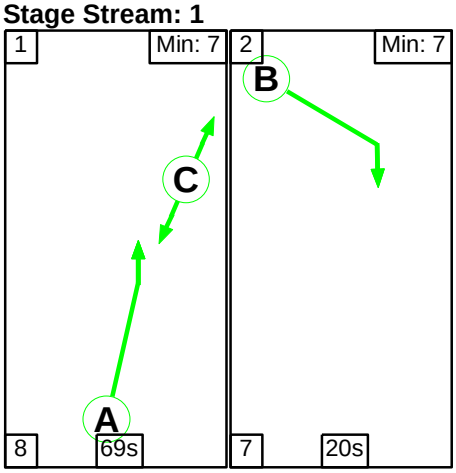


Full Input Data And Results

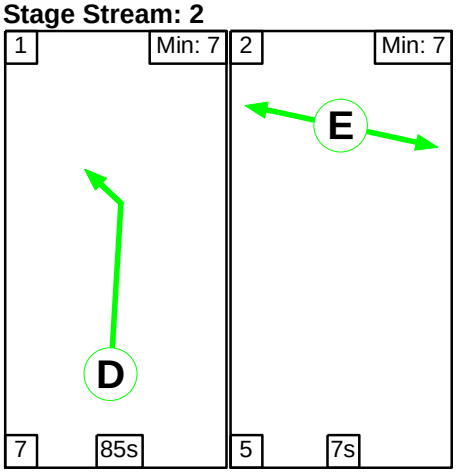
C2

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

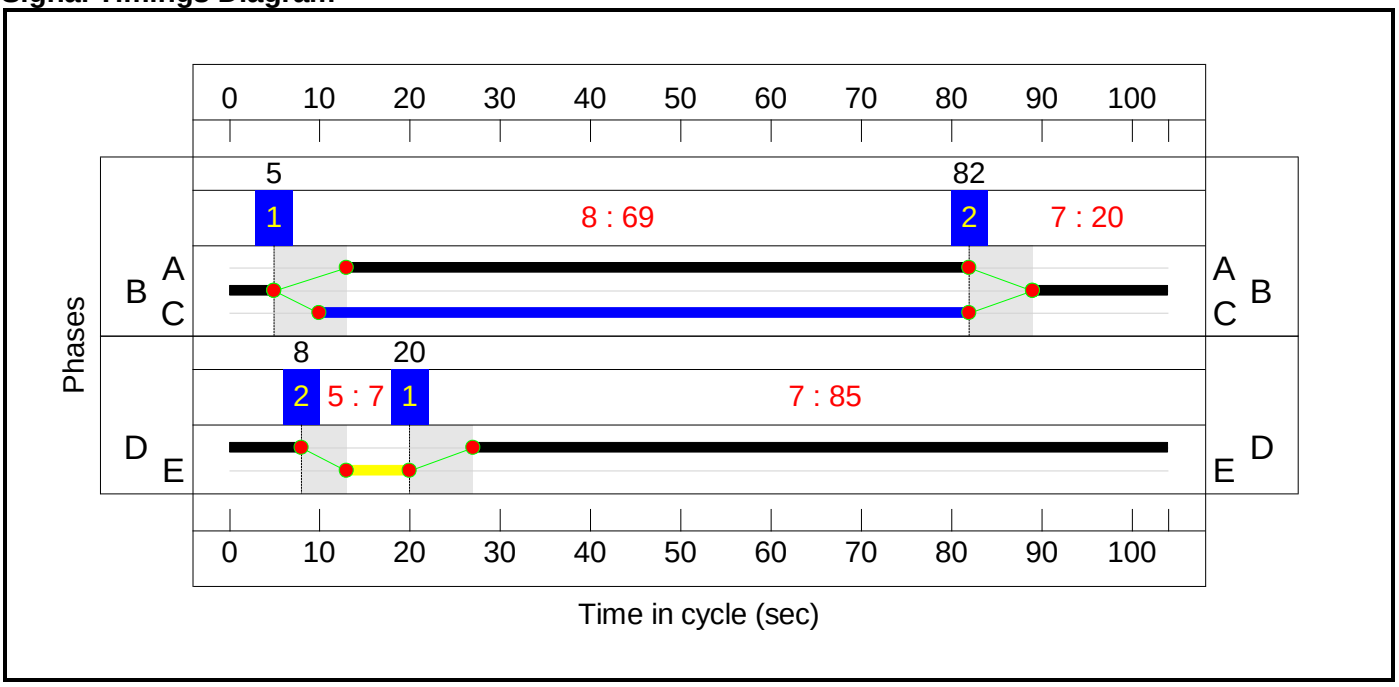
Stage	1	2
Duration	69	20
Change Point	5	82

Stage Stream: 2

Stage	1	2
Duration	85	7
Change Point	20	8

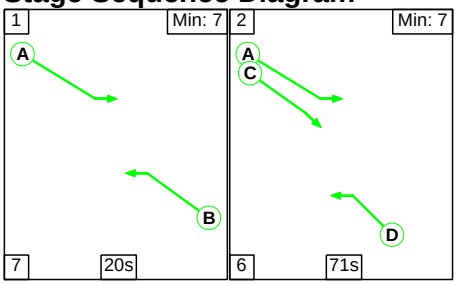
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

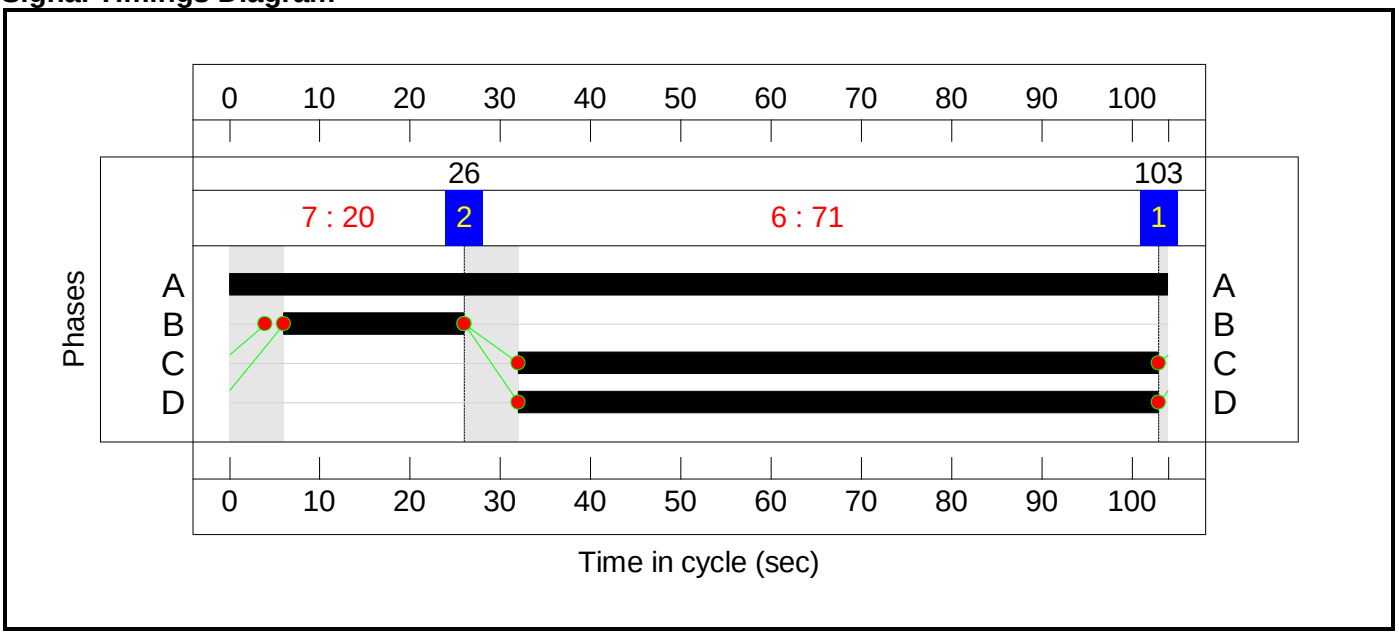


Stage Timings

Stage	1	2
Duration	20	71
Change Point	103	26

Full Input Data And Results

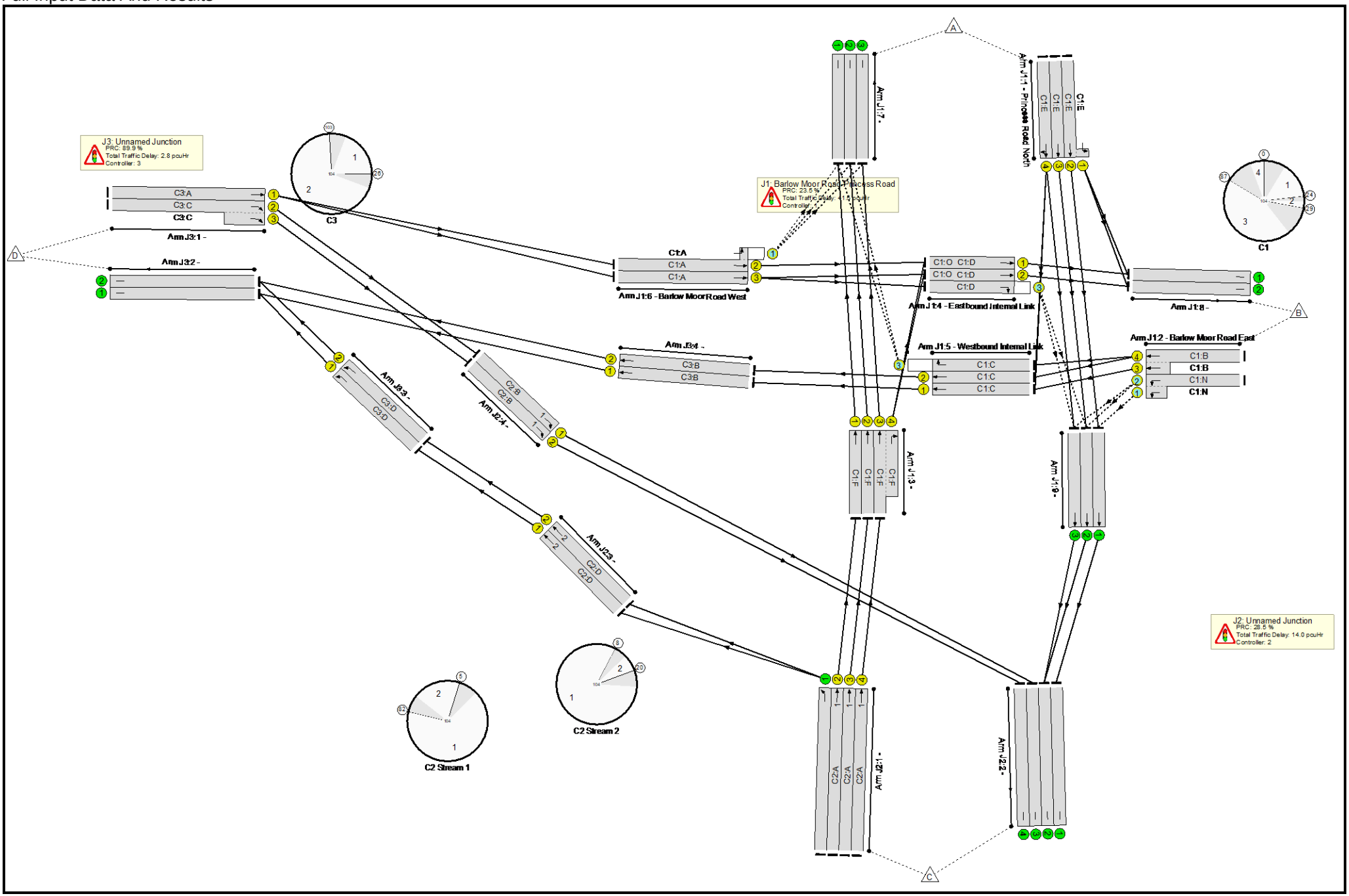
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.9%**
J1: Barlow Moor Road-Princess Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.9%**
1/2+1/1	Princess Road North Left Ahead	U	N/A	N/A	C1:E		1	48	-	677	1975:1952	717+218	72.4 : 72.4%
1/3	Princess Road North Ahead	U	N/A	N/A	C1:E		1	48	-	726	2115	996	72.9%
1/4	Princess Road North Right Ahead	U	N/A	N/A	C1:E		1	48	-	722	2104	991	72.8%
2/2+2/1	Barlow Moor Road East Left	O	N/A	N/A	C1:N		1	37	-	518	1880:1880	311+402	72.7 : 72.7%
2/4+2/3	Barlow Moor Road East Ahead	U	N/A	N/A	C1:B		1	33	-	416	1975:1975	484+217	59.3 : 59.3%
3/1	Ahead	U	N/A	N/A	C1:F		1	53	-	739	1965	1020	72.4%
3/2	Ahead	U	N/A	N/A	C1:F		1	53	-	777	2105	1093	71.1%
3/3+3/4	Right Ahead	U	N/A	N/A	C1:F		1	53	-	950	2105:1981	807+618	66.7 : 66.7%
4/1	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	43	19	336	1945	823	40.8%
4/2	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	43	19	351	2085	882	39.8%
4/3	Eastbound Internal Link Right	O	N/A	N/A	C1:D		1	24	-	88	1967	318	27.7%
5/1	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	37	-	188	1945	711	26.5%
5/2	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	37	-	187	2085	762	24.5%

Full Input Data And Results

5/3	Westbound Internal Link Right	O	N/A	N/A	C1:C		1	37	-	157	1994	359	43.8%
6/2+6/1	Barlow Moor Road West Ahead Left	U+O	N/A	N/A	C1:A		1	30	-	228	1965:2039	360+239	38.1 : 38.1%
6/3	Barlow Moor Road West Ahead	U	N/A	N/A	C1:A		1	30	-	226	2105	627	36.0%
7/1		U	N/A	N/A	-		-	-	-	847	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	886	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	569	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	415	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	430	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	811	Inf	Inf	0.0%
9/2	Ahead	U	N/A	N/A	-		-	-	-	883	Inf	Inf	0.0%
9/3	Ahead	U	N/A	N/A	-		-	-	-	763	Inf	Inf	0.0%
J2: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**70.0%**
1/1	Left	U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%
1/2	Ahead	U	2:1	N/A	C2:A		1	69	-	739	2015	1356	54.5%
1/3	Ahead	U	2:1	N/A	C2:A		1	69	-	777	2015	1356	57.3%
1/4	Ahead	U	2:1	N/A	C2:A		1	69	-	950	2015	1356	70.0%
2/1		U	N/A	N/A	-		-	-	-	811	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	1646	Inf	Inf	0.0%
2/3		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
2/4		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
3/1	Ahead	U	2:2	N/A	C2:D		1	85	-	161	1380	1141	14.1%
3/2	Ahead	U	2:2	N/A	C2:D		1	85	-	422	1985	1641	25.7%
4/1	Right	U	2:1	N/A	C2:B		1	20	-	252	1985	401	62.9%
4/2	Right	U	2:1	N/A	C2:B		1	20	-	252	1985	401	62.9%
J3: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**47.4%**

Full Input Data And Results

1/1	Ahead	U	N/A	N/A	C3:A		1	104	-	454	1945	1945	23.3%
1/2+1/3	Ahead	U	N/A	N/A	C3:C		1	71	-	504	1899:1899	748+748	33.7 : 33.7%
2/1		U	N/A	N/A	-		-	-	-	349	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	609	Inf	Inf	0.0%
3/1	Ahead	U	N/A	N/A	C3:D		1	71	-	161	1975	1367	11.8%
3/2	Ahead	U	N/A	N/A	C3:D		1	71	-	422	1975	1367	30.9%
4/1	Ahead	U	N/A	N/A	C3:B		1	20	-	188	1965	397	47.4%
4/2	Ahead	U	N/A	N/A	C3:B		1	20	-	187	1965	397	47.1%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**513**	**857**	**2**	**49.0**	**9.1**	**0.3**	**58.4**	**-**	**-**	**-**	**-**
J1: Barlow Moor Road-Princess Road	**-**	**-**	**513**	**857**	**2**	**35.2**	**6.0**	**0.3**	**41.5**	**-**	**-**	**-**	**-**
1/2+1/1	677	677	-	-	-	4.1	1.3	-	5.4	28.8	15.3	1.3	16.6
1/3	726	726	-	-	-	4.5	1.3	-	5.8	28.7	16.7	1.3	18.1
1/4	722	722	-	-	-	4.4	1.3	-	5.8	28.8	16.6	1.3	18.0
2/2+2/1	518	518	191	845	0	3.7	1.3	-	5.0	35.1	10.2	1.3	11.5
2/4+2/3	416	416	-	-	-	3.2	0.7	-	3.9	34.1	8.4	0.7	9.1
3/1	739	739	-	-	-	2.2	0.0	-	2.2	10.5	16.4	0.0	16.4
3/2	777	777	-	-	-	2.2	0.0	-	2.2	10.0	17.0	0.0	17.0
3/3+3/4	950	950	-	-	-	1.4	0.0	-	1.4	5.4	9.0	0.0	9.0
4/1	336	336	-	-	-	2.2	0.0	-	2.2	23.5	7.1	0.0	7.1
4/2	351	351	-	-	-	2.3	0.0	-	2.3	24.0	7.1	0.0	7.1
4/3	88	88	84	4	0	0.1	0.0	0.0	0.2	7.4	2.1	0.0	2.1
5/1	188	188	-	-	-	0.6	0.0	-	0.6	11.7	2.8	0.0	2.8
5/2	187	187	-	-	-	0.6	0.0	-	0.6	11.1	1.9	0.0	1.9
5/3	157	157	148	8	2	0.0	0.0	0.3	0.3	6.5	0.0	0.0	0.0
6/2+6/1	228	228	91	0	0	1.8	0.0	0.0	1.8	28.6	5.0	0.0	5.0
6/3	226	226	-	-	-	1.8	0.0	-	1.8	28.7	5.1	0.0	5.1
7/1	847	847	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	886	886	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	569	569	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	415	415	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	430	430	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	811	811	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	883	883	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

9/3	763	763	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**11.4**	**2.7**	**0.0**	**14.0**	**-**	**-**	**-**	**-**
1/1	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	739	739	-	-	-	1.8	0.6	-	2.4	11.7	10.9	0.6	11.5
1/3	777	777	-	-	-	2.0	0.7	-	2.6	12.1	11.9	0.7	12.5
1/4	950	950	-	-	-	2.8	1.2	-	3.9	14.9	16.9	1.2	18.1
2/1	811	811	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	1646	1646	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/4	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	161	161	-	-	-	0.1	0.1	-	0.2	3.6	0.9	0.1	1.0
3/2	422	422	-	-	-	0.2	0.2	-	0.4	3.5	2.6	0.2	2.8
4/1	252	252	-	-	-	2.3	0.0	-	2.3	32.3	6.7	0.0	6.7
4/2	252	252	-	-	-	2.3	0.0	-	2.3	32.3	6.7	0.0	6.7
J3: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**2.4**	**0.4**	**0.0**	**2.8**	**-**	**-**	**-**	**-**
1/1	454	454	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
1/2+1/3	504	504	-	-	-	0.8	0.3	-	1.0	7.5	2.5	0.3	2.8
2/1	349	349	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	609	609	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	161	161	-	-	-	0.2	0.0	-	0.2	4.3	0.9	0.0	0.9
3/2	422	422	-	-	-	0.5	0.0	-	0.5	4.6	2.5	0.0	2.5
4/1	188	188	-	-	-	0.5	0.0	-	0.5	8.8	4.1	0.0	4.1
4/2	187	187	-	-	-	0.5	0.0	-	0.5	8.7	4.0	0.0	4.0

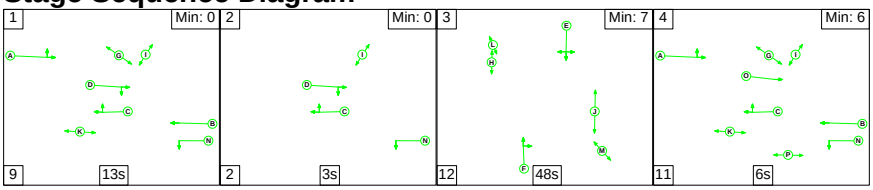
C1		PRC for Signalled Lanes (%):	23.5	Total Delay for Signalled Lanes (pcuHr):	41.51	Cycle Time (s): 104
C2	Stream: 1	PRC for Signalled Lanes (%):	28.5	Total Delay for Signalled Lanes (pcuHr):	13.48	Cycle Time (s): 104
C2	Stream: 2	PRC for Signalled Lanes (%):	250.1	Total Delay for Signalled Lanes (pcuHr):	0.57	Cycle Time (s): 104
C3		PRC for Signalled Lanes (%):	89.9	Total Delay for Signalled Lanes (pcuHr):	2.84	Cycle Time (s): 104
		PRC Over All Lanes (%):	23.5	Total Delay Over All Lanes(pcuHr):	58.39	

Full Input Data And Results

Scenario 4: 'PM Base + D1' (FG4: 'PM Base + D1', Plan 1: 'Network Control Plan 1')

C1

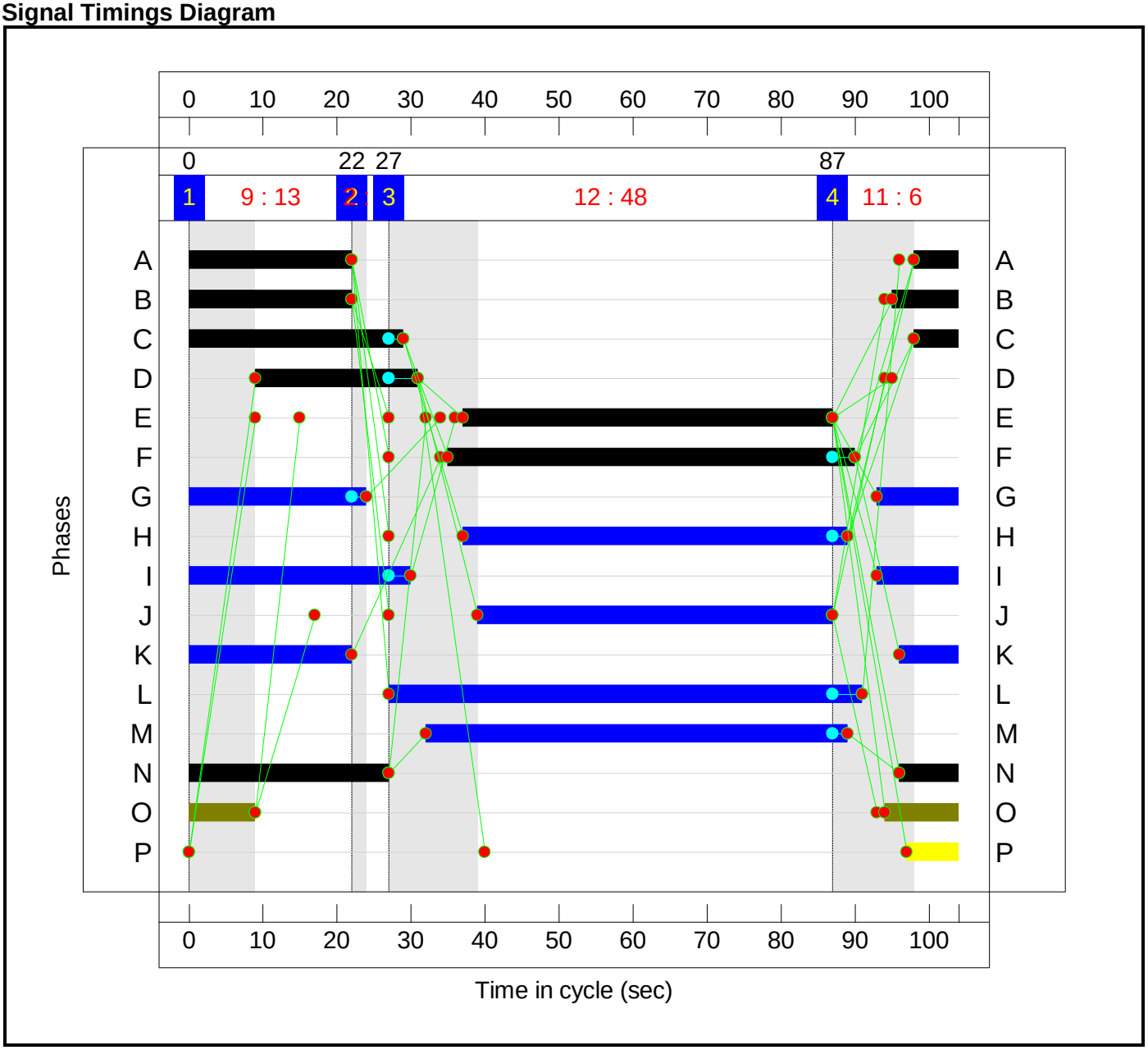
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	13	3	48	6
Change Point	0	22	27	87

Signal Timings Diagram

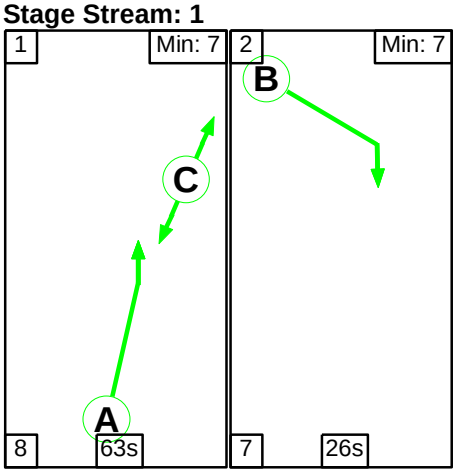


Full Input Data And Results

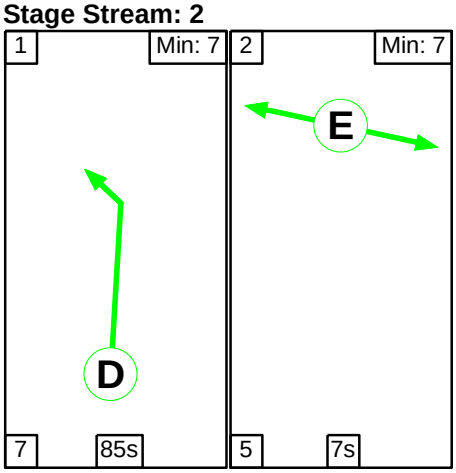
C2

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

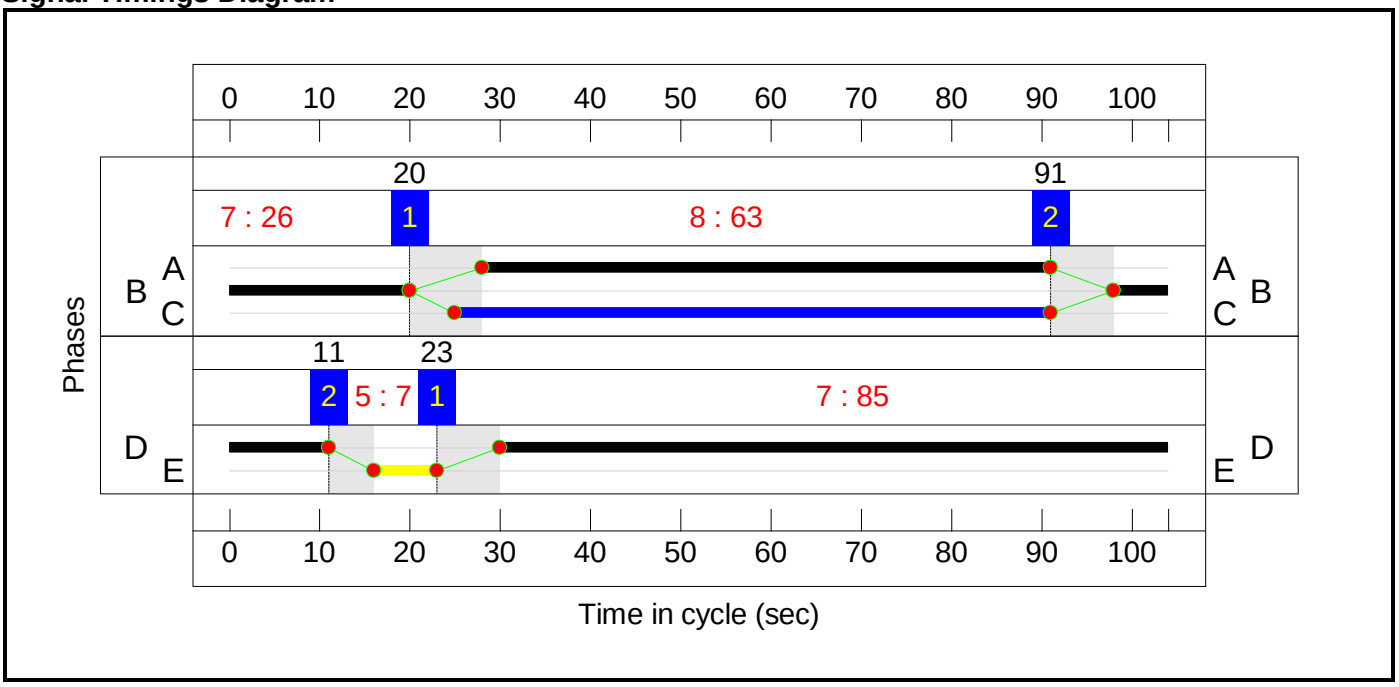
Stage	1	2
Duration	63	26
Change Point	20	91

Stage Stream: 2

Stage	1	2
Duration	85	7
Change Point	23	11

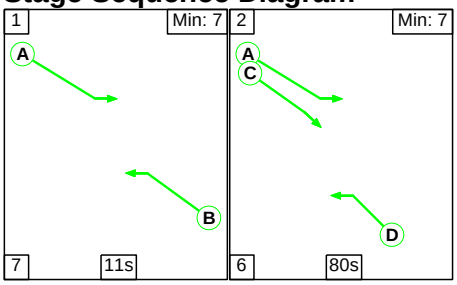
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

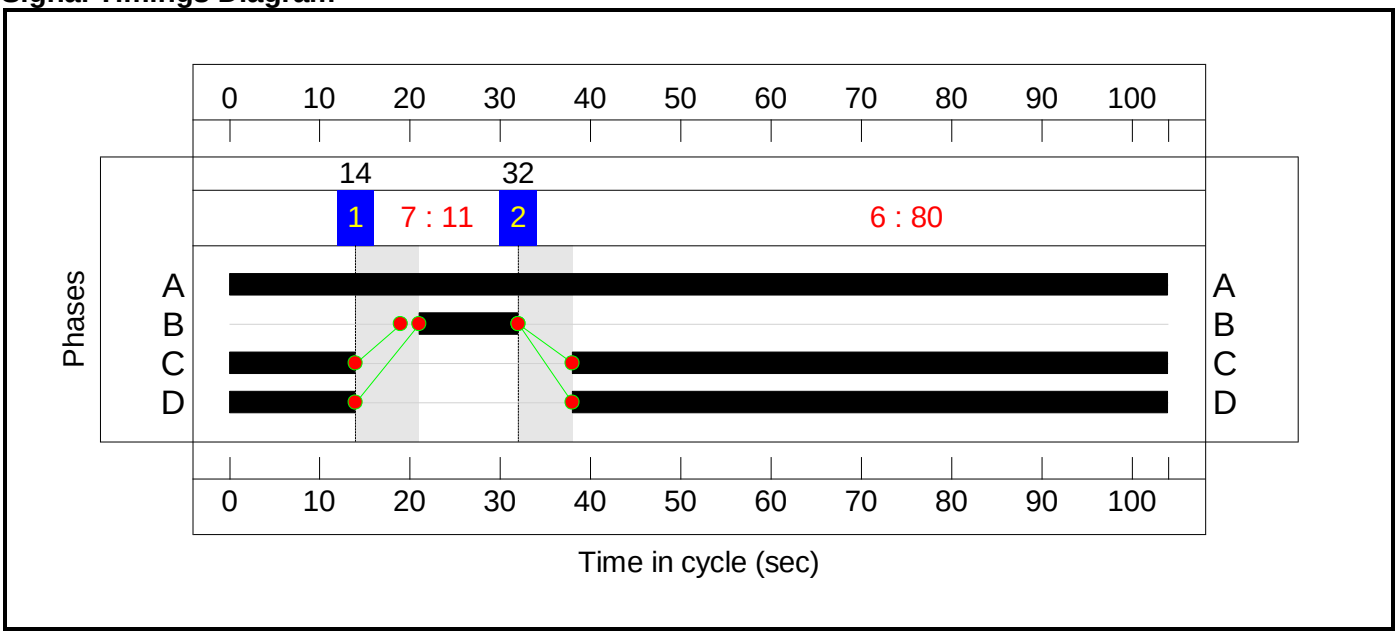


Stage Timings

Stage	1	2
Duration	11	80
Change Point	14	32

Full Input Data And Results

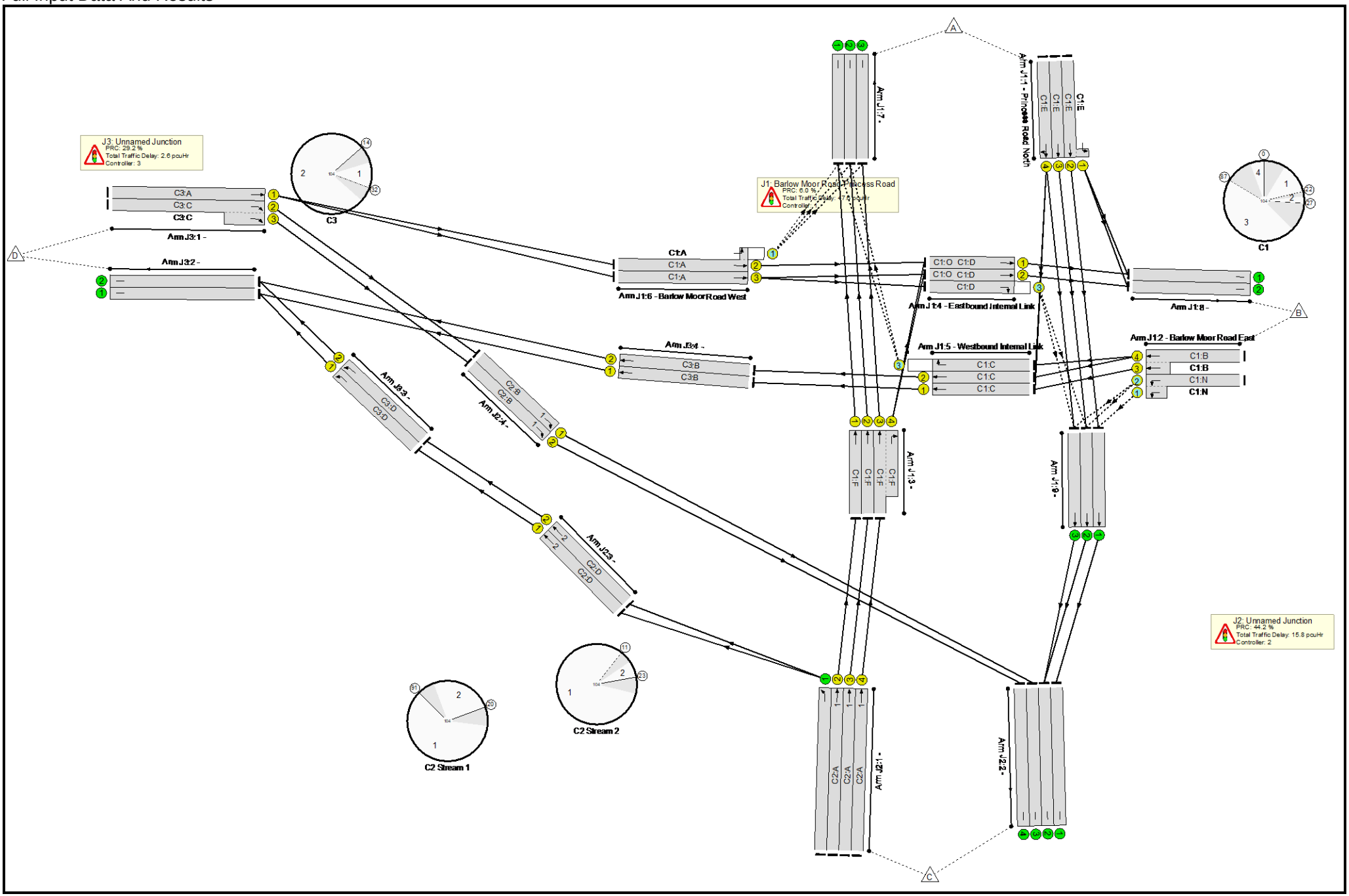
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.9%**
J1: Barlow Moor Road-Princess Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.9%**
1/2+1/1	Princess Road North Left Ahead	U	N/A	N/A	C1:E		1	50	-	818	1975:1952	797+173	84.3 : 84.3%
1/3	Princess Road North Ahead	U	N/A	N/A	C1:E		1	50	-	881	2115	1037	84.9%
1/4	Princess Road North Right Ahead	U	N/A	N/A	C1:E		1	50	-	877	2108	1034	84.8%
2/2+2/1	Barlow Moor Road East Left	O	N/A	N/A	C1:N		1	35	-	605	1880:1880	328+391	84.1 : 84.1%
2/4+2/3	Barlow Moor Road East Ahead	U	N/A	N/A	C1:B		1	31	-	395	1975:1975	465+196	59.8 : 59.8%
3/1	Ahead	U	N/A	N/A	C1:F		1	55	-	750	1965	1058	70.9%
3/2	Ahead	U	N/A	N/A	C1:F		1	55	-	755	2105	1133	66.6%
3/3+3/4	Right Ahead	U	N/A	N/A	C1:F		1	55	-	774	2105:1981	827+641	52.7 : 52.7%
4/1	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	41	19	268	1945	785	34.1%
4/2	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	41	19	300	2085	842	35.6%
4/3	Eastbound Internal Link Right	O	N/A	N/A	C1:D		1	22	-	66	1967	302	21.9%
5/1	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	35	-	158	1945	673	23.5%
5/2	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	35	-	158	2085	722	21.9%

Full Input Data And Results

5/3	Westbound Internal Link Right	O	N/A	N/A	C1:C		1	35	-	161	1994	359	44.8%
6/2+6/1	Barlow Moor Road West Ahead Left	U+O	N/A	N/A	C1:A		1	28	-	204	1965:2039	253+238	41.5 : 41.5%
6/3	Barlow Moor Road West Ahead	U	N/A	N/A	C1:A		1	28	-	191	2105	587	32.5%
7/1		U	N/A	N/A	-		-	-	-	863	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	869	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	469	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	341	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	1001	Inf	Inf	0.0%
9/2	Ahead	U	N/A	N/A	-		-	-	-	1052	Inf	Inf	0.0%
9/3	Ahead	U	N/A	N/A	-		-	-	-	966	Inf	Inf	0.0%
J2: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**62.4%**
1/1	Left	U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
1/2	Ahead	U	2:1	N/A	C2:A		1	63	-	750	2015	1240	60.5%
1/3	Ahead	U	2:1	N/A	C2:A		1	63	-	755	2015	1240	60.9%
1/4	Ahead	U	2:1	N/A	C2:A		1	63	-	774	2015	1240	62.4%
2/1		U	N/A	N/A	-		-	-	-	1001	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	2018	Inf	Inf	0.0%
2/3		U	N/A	N/A	-		-	-	-	300	Inf	Inf	0.0%
2/4		U	N/A	N/A	-		-	-	-	300	Inf	Inf	0.0%
3/1	Ahead	U	2:2	N/A	C2:D		1	85	-	126	1380	1141	11.0%
3/2	Ahead	U	2:2	N/A	C2:D		1	85	-	411	1985	1641	25.0%
4/1	Right	U	2:1	N/A	C2:B		1	26	-	300	1985	515	58.2%
4/2	Right	U	2:1	N/A	C2:B		1	26	-	300	1985	515	58.2%
J3: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.7%**

Full Input Data And Results

1/1	Ahead	U	N/A	N/A	C3:A		1	104	-	395	1945	1945	20.3%
1/2+1/3	Ahead	U	N/A	N/A	C3:C		1	80	-	600	1899:1899	830+830	36.1 : 36.1%
2/1		U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	569	Inf	Inf	0.0%
3/1	Ahead	U	N/A	N/A	C3:D		1	80	-	126	1975	1538	8.2%
3/2	Ahead	U	N/A	N/A	C3:D		1	80	-	411	1975	1538	26.7%
4/1	Ahead	U	N/A	N/A	C3:B		1	11	-	158	1965	227	69.7%
4/2	Ahead	U	N/A	N/A	C3:B		1	11	-	158	1965	227	69.7%

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	**-**	**-**	**666**	**868**	**2**	**51.4**	**14.3**	**0.3**	**65.9**	**-**	**-**	**-**	**-**
J1: Barlow Moor Road-Princess Road	**-**	**-**	**666**	**868**	**2**	**36.0**	**11.3**	**0.3**	**47.6**	**-**	**-**	**-**	**-**
1/2+1/1	818	818	-	-	-	5.2	2.6	-	7.8	34.3	20.2	2.6	22.8
1/3	881	881	-	-	-	5.7	2.7	-	8.4	34.3	22.0	2.7	24.8
1/4	877	877	-	-	-	5.6	2.7	-	8.3	34.2	21.9	2.7	24.6
2/2+2/1	605	605	353	857	0	5.0	2.5	-	7.5	44.6	13.4	2.5	16.0
2/4+2/3	395	395	-	-	-	3.2	0.7	-	4.0	36.0	8.2	0.7	8.9
3/1	750	750	-	-	-	1.3	0.0	-	1.3	6.1	5.5	0.0	5.5
3/2	755	755	-	-	-	1.3	0.0	-	1.3	6.0	3.7	0.0	3.7
3/3+3/4	774	774	-	-	-	1.2	0.0	-	1.2	5.8	1.7	0.0	1.7
4/1	268	268	-	-	-	1.6	0.0	-	1.6	21.7	4.9	0.0	4.9
4/2	300	300	-	-	-	1.7	0.0	-	1.7	20.8	5.2	0.0	5.2
4/3	66	66	63	3	0	0.1	0.0	0.0	0.1	7.2	1.6	0.0	1.6
5/1	158	158	-	-	-	0.4	0.0	-	0.4	9.2	1.8	0.0	1.8
5/2	158	158	-	-	-	0.4	0.0	-	0.4	9.1	1.3	0.0	1.3
5/3	161	161	152	8	2	0.0	0.0	0.3	0.3	6.0	0.0	0.0	0.0
6/2+6/1	204	204	99	0	0	1.7	0.0	0.0	1.7	29.7	4.5	0.0	4.5
6/3	191	191	-	-	-	1.6	0.0	-	1.6	29.8	4.4	0.0	4.4
7/1	863	863	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	869	869	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	469	469	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	341	341	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1001	1001	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	1052	1052	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

9/3	966	966	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**13.2**	**2.6**	**0.0**	**15.8**	**-**	**-**	**-**	**-**
1/1	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	750	750	-	-	-	2.6	0.8	-	3.3	15.9	13.1	0.8	13.9
1/3	755	755	-	-	-	2.6	0.8	-	3.4	16.0	13.2	0.8	14.0
1/4	774	774	-	-	-	2.7	0.8	-	3.5	16.3	13.8	0.8	14.6
2/1	1001	1001	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	2018	2018	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	300	300	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/4	300	300	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	126	126	-	-	-	0.1	0.1	-	0.1	3.5	0.7	0.1	0.7
3/2	411	411	-	-	-	0.2	0.2	-	0.4	3.4	2.5	0.2	2.7
4/1	300	300	-	-	-	2.5	0.0	-	2.5	30.6	7.5	0.0	7.5
4/2	300	300	-	-	-	2.5	0.0	-	2.5	30.6	7.5	0.0	7.5
J3: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**2.2**	**0.4**	**0.0**	**2.6**	**-**	**-**	**-**	**-**
1/1	395	395	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2+1/3	600	600	-	-	-	0.5	0.3	-	0.8	4.7	2.2	0.3	2.5
2/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	569	569	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	126	126	-	-	-	0.0	0.0	-	0.0	1.4	0.3	0.0	0.3
3/2	411	411	-	-	-	0.2	0.0	-	0.2	1.5	1.3	0.0	1.3
4/1	158	158	-	-	-	0.7	0.0	-	0.7	16.9	4.4	0.0	4.4
4/2	158	158	-	-	-	0.7	0.0	-	0.7	16.6	4.4	0.0	4.4

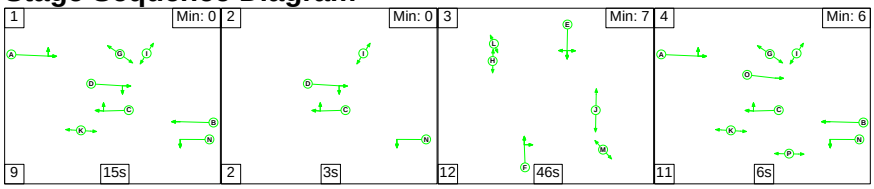
C1		PRC for Signalled Lanes (%):	6.0	Total Delay for Signalled Lanes (pcuHr):	47.55	Cycle Time (s):	104
C2	Stream: 1	PRC for Signalled Lanes (%):	44.2	Total Delay for Signalled Lanes (pcuHr):	15.28	Cycle Time (s):	104
C2	Stream: 2	PRC for Signalled Lanes (%):	259.4	Total Delay for Signalled Lanes (pcuHr):	0.51	Cycle Time (s):	104
C3		PRC for Signalled Lanes (%):	29.2	Total Delay for Signalled Lanes (pcuHr):	2.60	Cycle Time (s):	104
		PRC Over All Lanes (%):	6.0	Total Delay Over All Lanes(pcuHr):	65.95		

Full Input Data And Results

Scenario 5: 'AM Base + D1 + Meanwhile Use' (FG5: 'AM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

C1

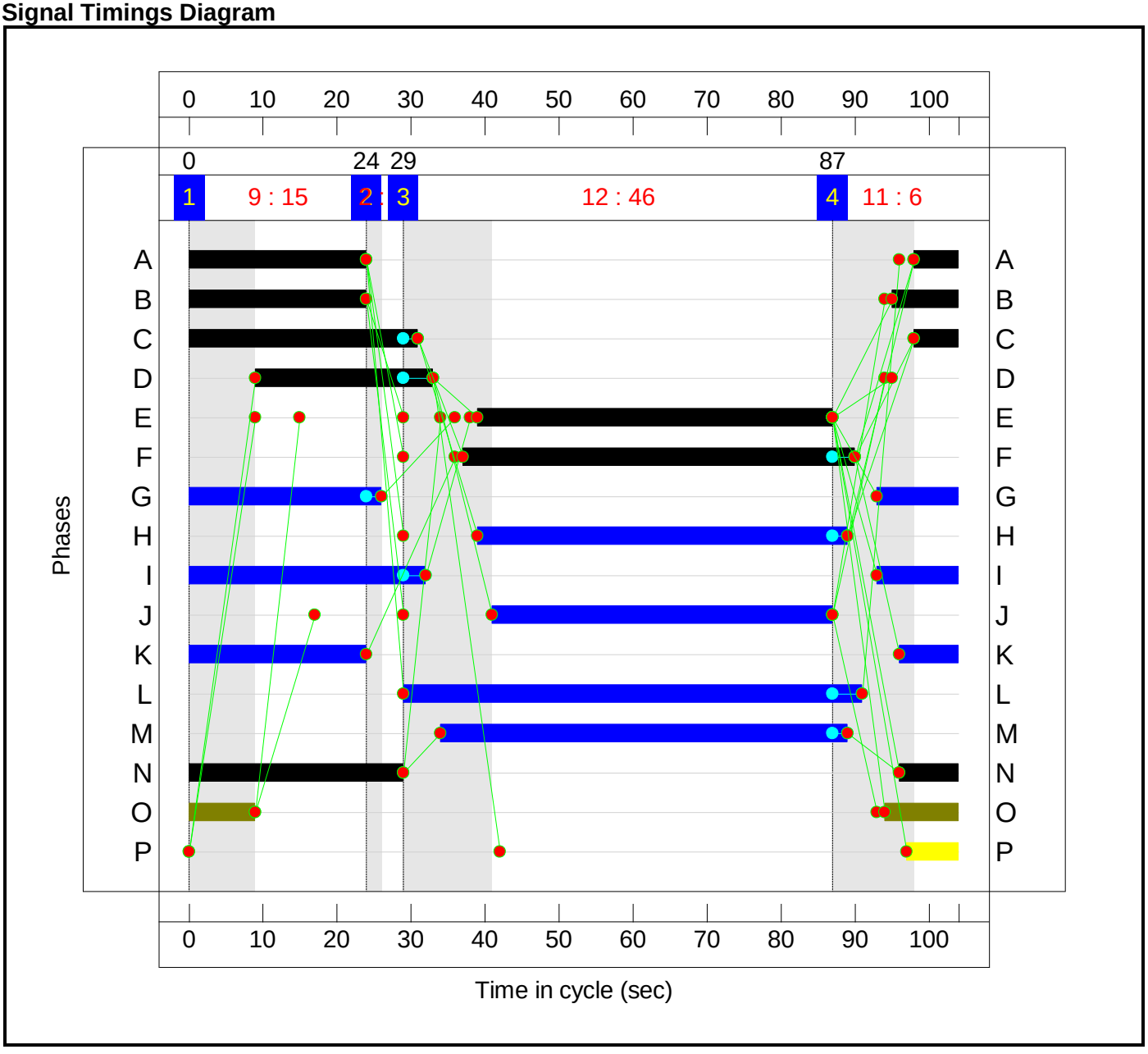
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	15	3	46	6
Change Point	0	24	29	87

Signal Timings Diagram

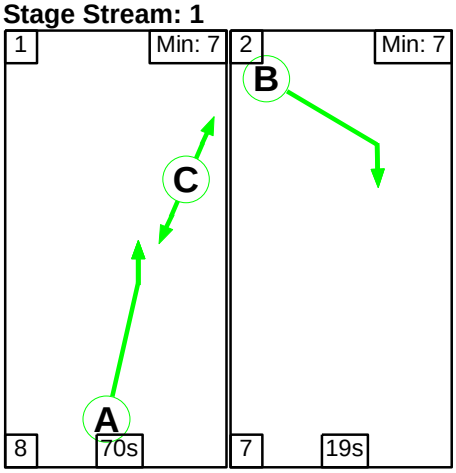


Full Input Data And Results

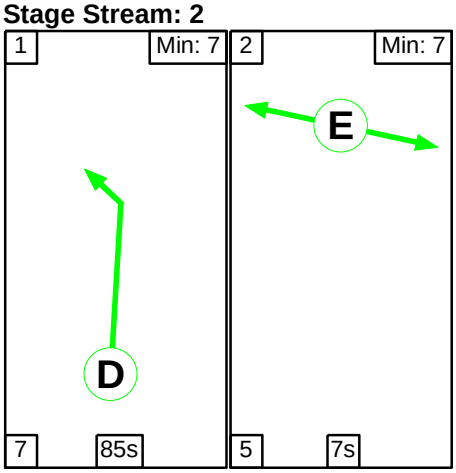
C2

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

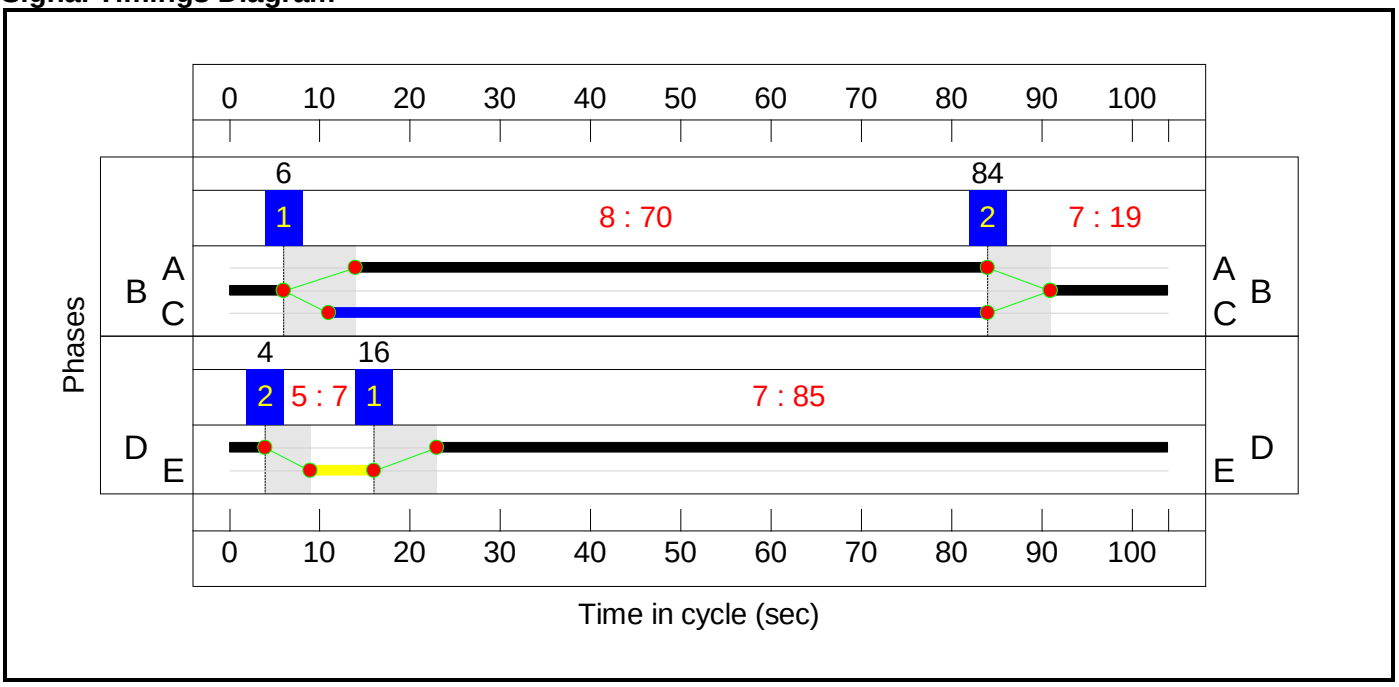
Stage	1	2
Duration	70	19
Change Point	6	84

Stage Stream: 2

Stage	1	2
Duration	85	7
Change Point	16	4

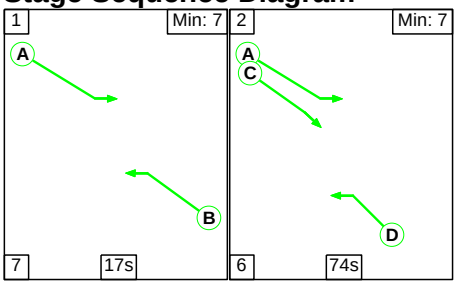
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

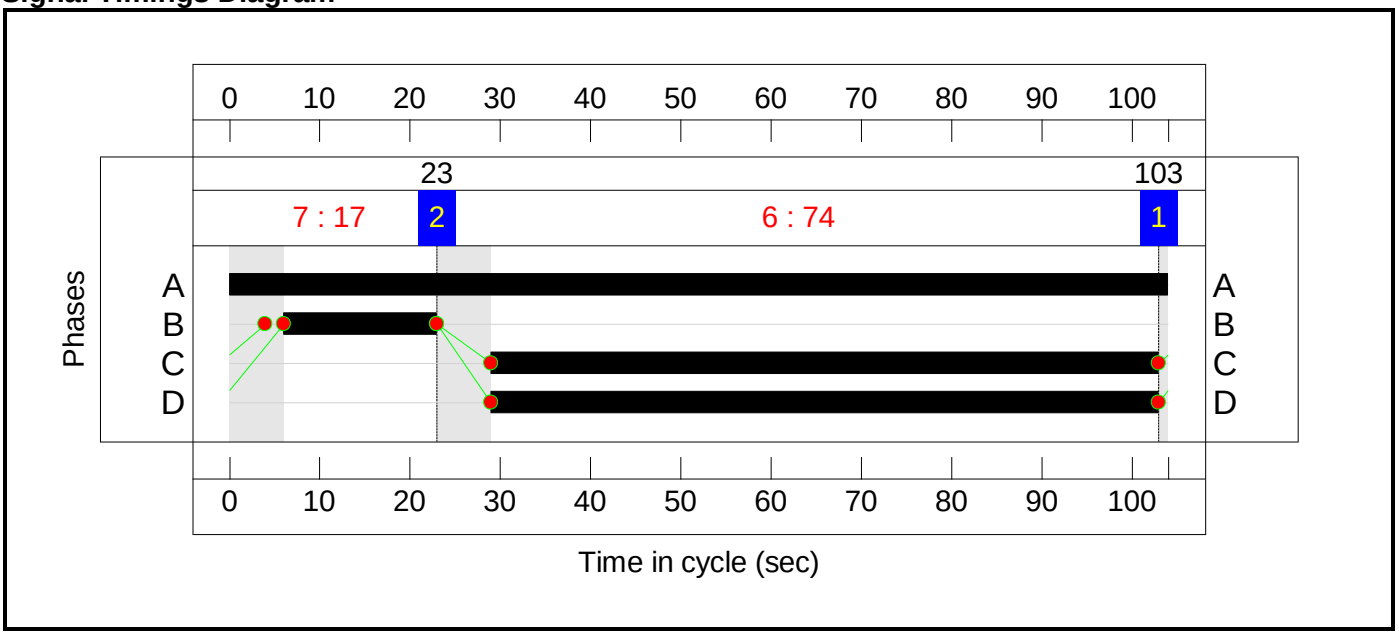


Stage Timings

Stage	1	2
Duration	17	74
Change Point	103	23

Full Input Data And Results

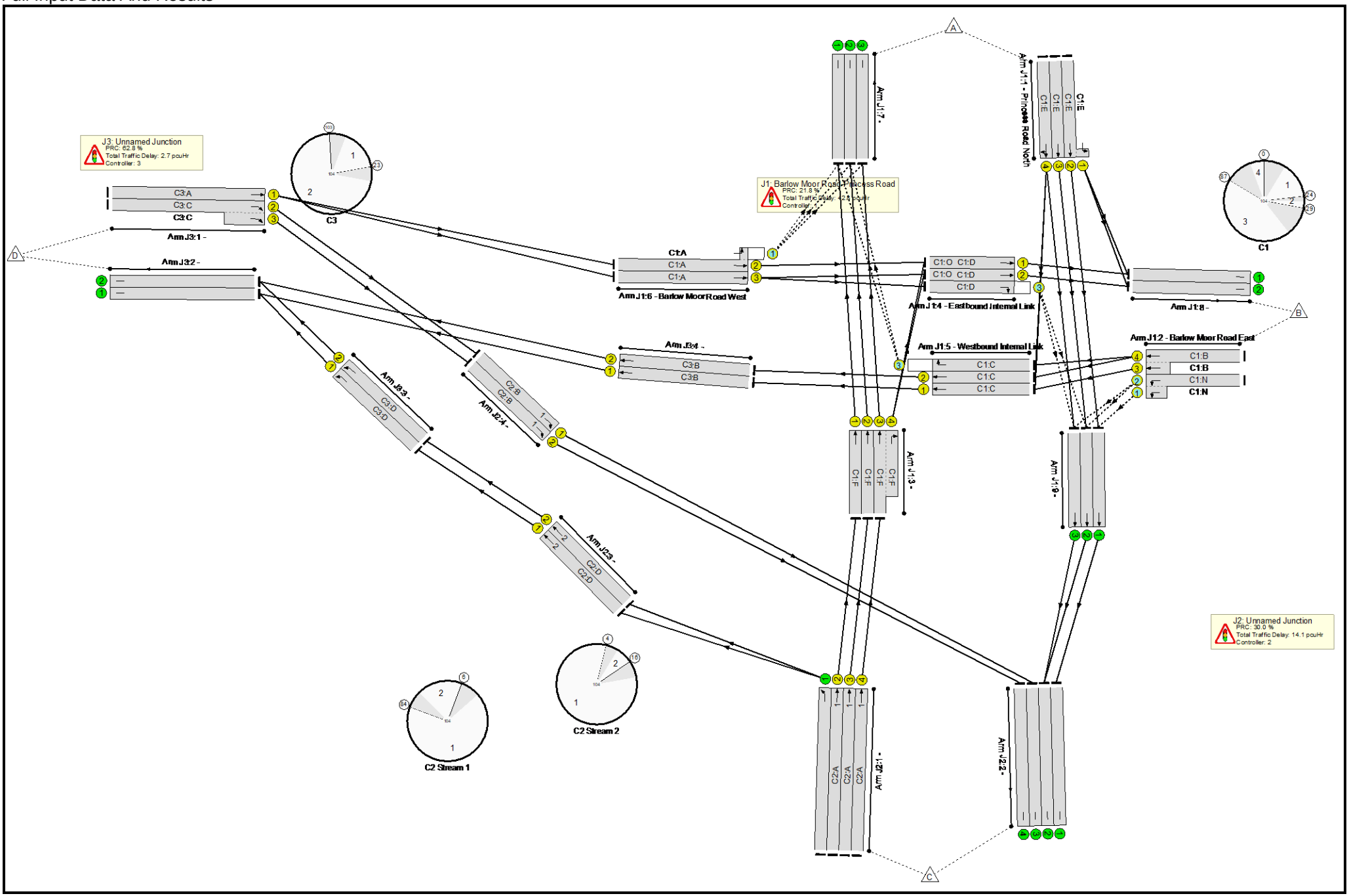
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**73.9%**
J1: Barlow Moor Road-Princess Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**73.9%**
1/2+1/1	Princess Road North Left Ahead	U	N/A	N/A	C1:E		1	48	-	681	1975:1952	704+232	72.8 : 72.8%
1/3	Princess Road North Ahead	U	N/A	N/A	C1:E		1	48	-	730	2115	996	73.3%
1/4	Princess Road North Right Ahead	U	N/A	N/A	C1:E		1	48	-	725	2104	991	73.1%
2/2+2/1	Barlow Moor Road East Left	O	N/A	N/A	C1:N		1	37	-	522	1880:1880	308+403	73.5 : 73.5%
2/4+2/3	Barlow Moor Road East Ahead	U	N/A	N/A	C1:B		1	33	-	418	1975:1975	485+216	59.6 : 59.6%
3/1	Ahead	U	N/A	N/A	C1:F		1	53	-	754	1965	1020	73.9%
3/2	Ahead	U	N/A	N/A	C1:F		1	53	-	793	2105	1093	72.6%
3/3+3/4	Right Ahead	U	N/A	N/A	C1:F		1	53	-	952	2105:1981	785+689	64.6 : 64.6%
4/1	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	43	19	353	1945	823	42.9%
4/2	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	43	19	372	2085	882	42.2%
4/3	Eastbound Internal Link Right	O	N/A	N/A	C1:D		1	24	-	88	1967	317	27.7%
5/1	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	37	-	188	1945	711	26.5%
5/2	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	37	-	188	2085	762	24.7%

Full Input Data And Results

5/3	Westbound Internal Link Right	O	N/A	N/A	C1:C		1	37	-	158	1994	357	44.2%
6/2+6/1	Barlow Moor Road West Ahead Left	U+O	N/A	N/A	C1:A		1	30	-	229	1965:2039	361+238	38.2 : 38.2%
6/3	Barlow Moor Road West Ahead	U	N/A	N/A	C1:A		1	30	-	230	2105	627	36.7%
7/1		U	N/A	N/A	-		-	-	-	863	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	902	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	538	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	437	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	808	Inf	Inf	0.0%
9/2	Ahead	U	N/A	N/A	-		-	-	-	887	Inf	Inf	0.0%
9/3	Ahead	U	N/A	N/A	-		-	-	-	766	Inf	Inf	0.0%
J2: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.2%**
1/1	Left	U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%
1/2	Ahead	U	2:1	N/A	C2:A		1	70	-	754	2015	1376	54.8%
1/3	Ahead	U	2:1	N/A	C2:A		1	70	-	793	2015	1376	57.6%
1/4	Ahead	U	2:1	N/A	C2:A		1	70	-	952	2015	1376	69.2%
2/1		U	N/A	N/A	-		-	-	-	808	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	1653	Inf	Inf	0.0%
2/3		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
2/4		U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
3/1	Ahead	U	2:2	N/A	C2:D		1	85	-	161	1380	1141	14.1%
3/2	Ahead	U	2:2	N/A	C2:D		1	85	-	422	1985	1641	25.7%
4/1	Right	U	2:1	N/A	C2:B		1	19	-	252	1985	382	66.0%
4/2	Right	U	2:1	N/A	C2:B		1	19	-	252	1985	382	66.0%
J3: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**55.3%**

Full Input Data And Results

1/1	Ahead	U	N/A	N/A	C3:A		1	104	-	459	1945	1945	23.6%
1/2+1/3	Ahead	U	N/A	N/A	C3:C		1	74	-	504	1899:1899	776+776	32.5 : 32.5%
2/1		U	N/A	N/A	-		-	-	-	349	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	610	Inf	Inf	0.0%
3/1	Ahead	U	N/A	N/A	C3:D		1	74	-	161	1975	1424	11.3%
3/2	Ahead	U	N/A	N/A	C3:D		1	74	-	422	1975	1424	29.6%
4/1	Ahead	U	N/A	N/A	C3:B		1	17	-	188	1965	340	55.3%
4/2	Ahead	U	N/A	N/A	C3:B		1	17	-	188	1965	340	55.3%

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	**-**	**-**	**524**	**855**	**2**	**50.1**	**9.2**	**0.3**	**59.6**	**-**	**-**	**-**	**-**
J1: Barlow Moor Road-Princess Road	**-**	**-**	**524**	**855**	**2**	**36.3**	**6.1**	**0.3**	**42.8**	**-**	**-**	**-**	**-**
1/2+1/1	681	681	-	-	-	4.1	1.3	-	5.5	28.9	15.4	1.3	16.7
1/3	730	730	-	-	-	4.5	1.4	-	5.9	28.9	16.8	1.4	18.2
1/4	725	725	-	-	-	4.5	1.3	-	5.8	28.9	16.7	1.3	18.1
2/2+2/1	522	522	201	843	0	3.8	1.4	-	5.1	35.5	10.3	1.4	11.7
2/4+2/3	418	418	-	-	-	3.2	0.7	-	4.0	34.2	8.5	0.7	9.3
3/1	754	754	-	-	-	2.3	0.0	-	2.3	11.1	17.0	0.0	17.0
3/2	793	793	-	-	-	2.3	0.0	-	2.3	10.7	17.6	0.0	17.6
3/3+3/4	952	952	-	-	-	1.6	0.0	-	1.6	5.9	7.8	0.0	7.8
4/1	353	353	-	-	-	2.4	0.0	-	2.4	24.5	8.2	0.0	8.2
4/2	372	372	-	-	-	2.6	0.0	-	2.6	24.7	8.3	0.0	8.3
4/3	88	88	84	4	0	0.1	0.0	0.0	0.2	7.4	2.1	0.0	2.1
5/1	188	188	-	-	-	0.6	0.0	-	0.6	11.7	2.8	0.0	2.8
5/2	188	188	-	-	-	0.6	0.0	-	0.6	11.0	1.9	0.0	1.9
5/3	158	158	149	8	2	0.0	0.0	0.3	0.3	6.6	0.0	0.0	0.0
6/2+6/1	229	229	91	0	0	1.8	0.0	0.0	1.8	28.6	5.0	0.0	5.0
6/3	230	230	-	-	-	1.8	0.0	-	1.8	28.8	5.2	0.0	5.2
7/1	863	863	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	902	902	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	538	538	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	437	437	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	808	808	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	887	887	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

9/3	766	766	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**11.4**	**2.7**	**0.0**	**14.1**	**-**	**-**	**-**	**-**
1/1	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	754	754	-	-	-	1.8	0.6	-	2.4	11.3	10.9	0.6	11.5
1/3	793	793	-	-	-	1.9	0.7	-	2.6	11.7	11.9	0.7	12.6
1/4	952	952	-	-	-	2.6	1.1	-	3.7	14.2	16.4	1.1	17.5
2/1	808	808	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	1653	1653	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/4	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	161	161	-	-	-	0.1	0.1	-	0.2	3.6	0.9	0.1	1.0
3/2	422	422	-	-	-	0.2	0.2	-	0.4	3.5	2.6	0.2	2.8
4/1	252	252	-	-	-	2.4	0.0	-	2.4	34.5	6.7	0.0	6.7
4/2	252	252	-	-	-	2.4	0.0	-	2.4	34.5	6.7	0.0	6.7
J3: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**2.3**	**0.4**	**0.0**	**2.7**	**-**	**-**	**-**	**-**
1/1	459	459	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
1/2+1/3	504	504	-	-	-	0.7	0.2	-	0.9	6.4	2.3	0.2	2.6
2/1	349	349	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	610	610	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	161	161	-	-	-	0.1	0.0	-	0.1	3.3	0.7	0.0	0.7
3/2	422	422	-	-	-	0.4	0.0	-	0.4	3.4	2.2	0.0	2.2
4/1	188	188	-	-	-	0.6	0.0	-	0.6	11.0	4.2	0.0	4.2
4/2	188	188	-	-	-	0.6	0.0	-	0.6	10.9	4.1	0.0	4.1

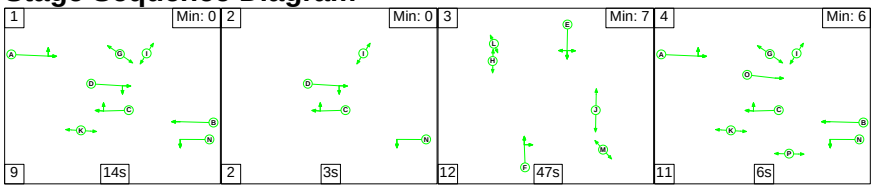
C1		PRC for Signalled Lanes (%):	21.8	Total Delay for Signalled Lanes (pcuHr):	42.78	Cycle Time (s):	104
C2	Stream: 1	PRC for Signalled Lanes (%):	30.0	Total Delay for Signalled Lanes (pcuHr):	13.51	Cycle Time (s):	104
C2	Stream: 2	PRC for Signalled Lanes (%):	250.1	Total Delay for Signalled Lanes (pcuHr):	0.57	Cycle Time (s):	104
C3		PRC for Signalled Lanes (%):	62.8	Total Delay for Signalled Lanes (pcuHr):	2.74	Cycle Time (s):	104
		PRC Over All Lanes (%):	21.8	Total Delay Over All Lanes(pcuHr):	59.60		

Full Input Data And Results

Scenario 6: 'PM Base + D1 + Meanwhile Use' (FG6: 'PM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

C1

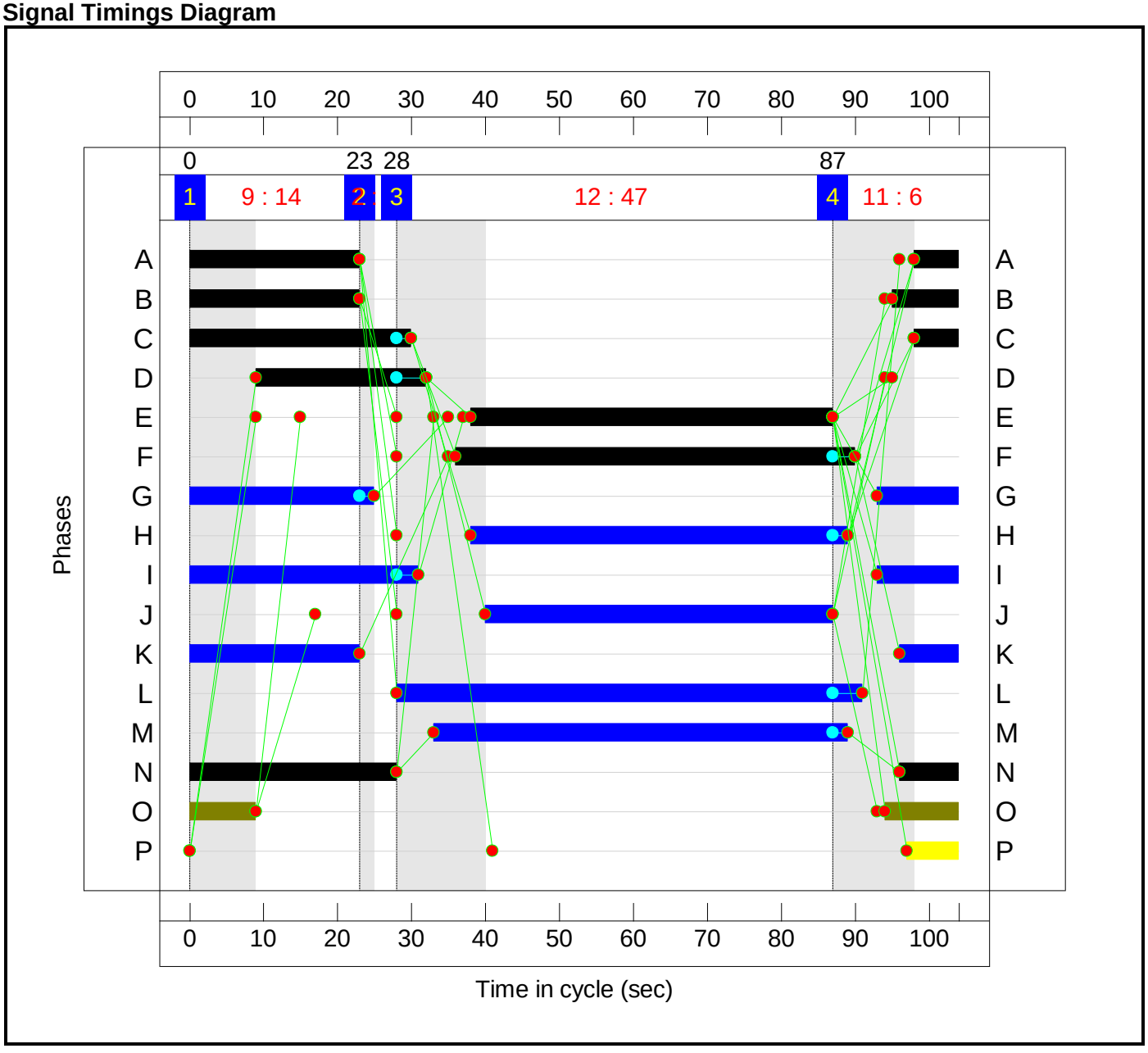
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	14	3	47	6
Change Point	0	23	28	87

Signal Timings Diagram

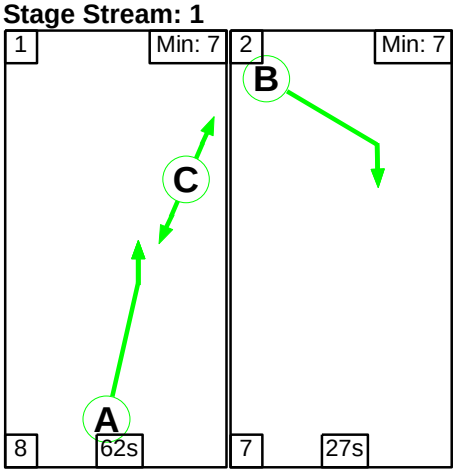


Full Input Data And Results

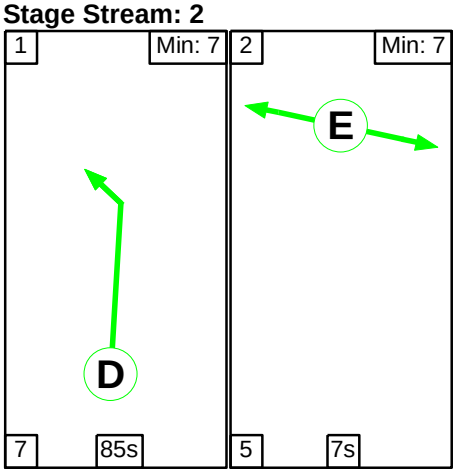
C2

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

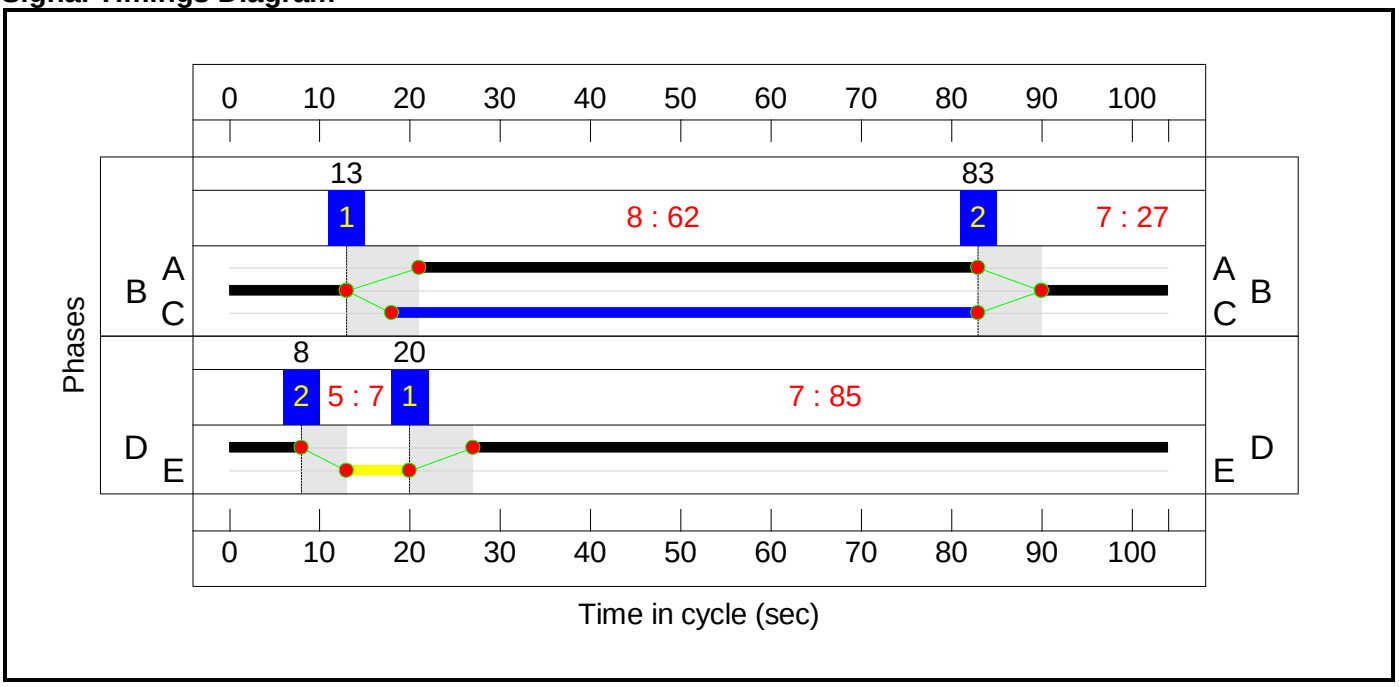
Stage	1	2
Duration	62	27
Change Point	13	83

Stage Stream: 2

Stage	1	2
Duration	85	7
Change Point	20	8

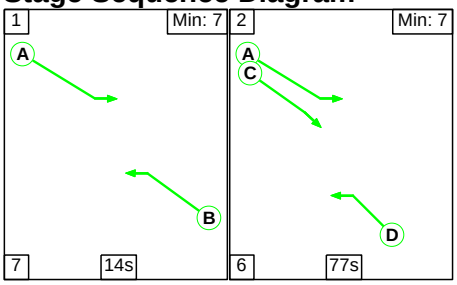
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

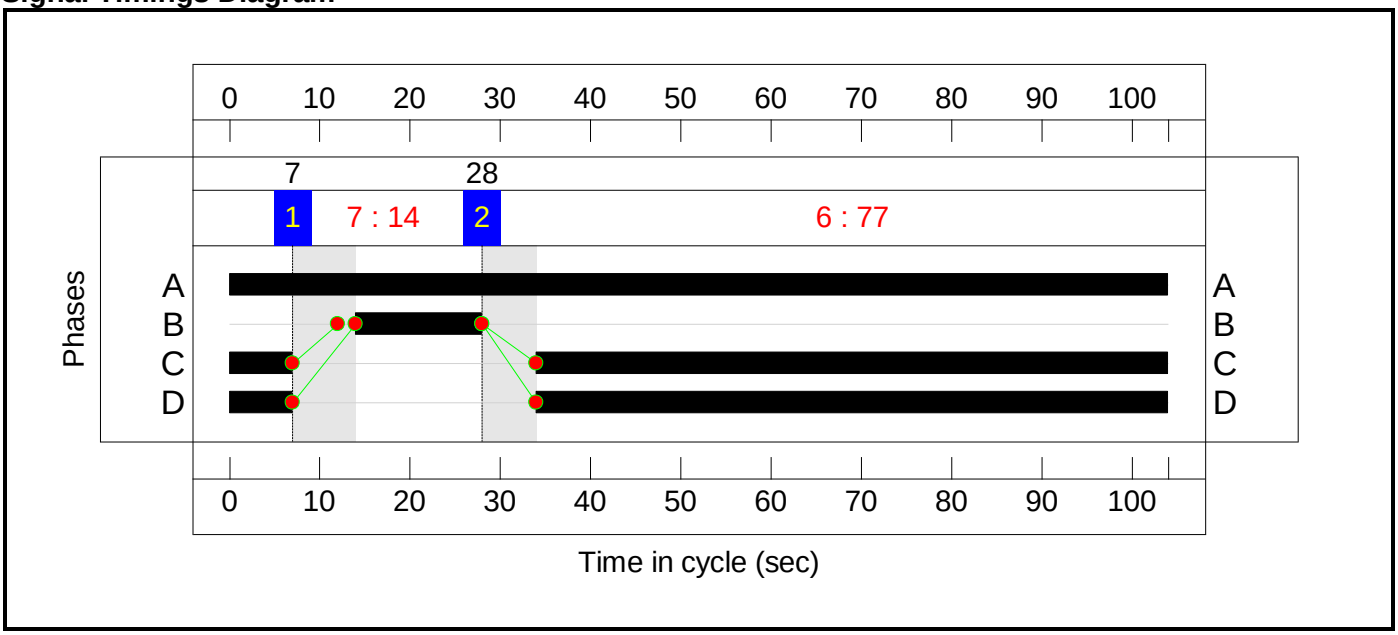


Stage Timings

Stage	1	2
Duration	14	77
Change Point	7	28

Full Input Data And Results

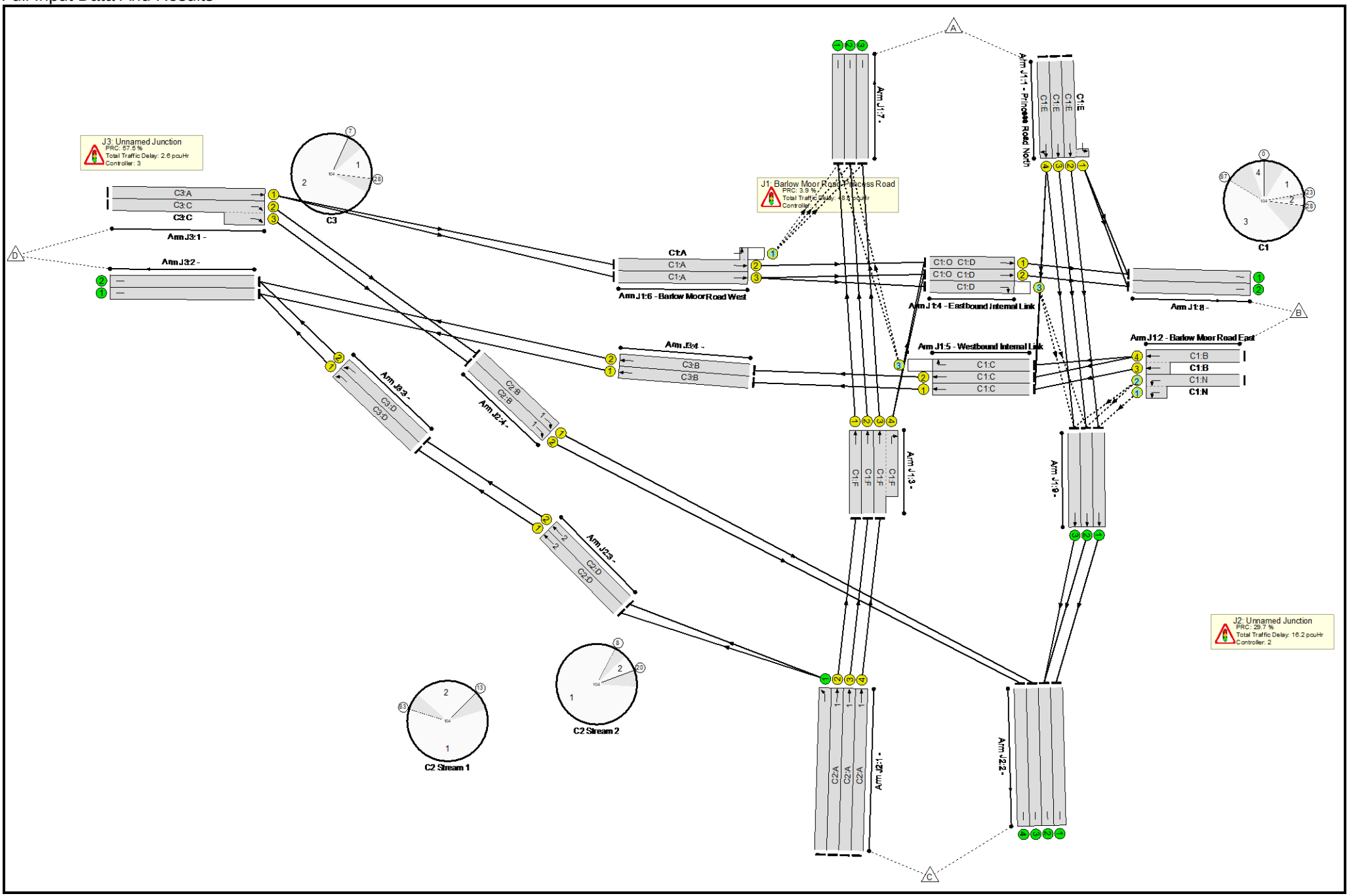
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.6%**
J1: Barlow Moor Road-Princess Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.6%**
1/2+1/1	Princess Road North Left Ahead	U	N/A	N/A	C1:E		1	49	-	819	1975:1952	781+171	86.0 : 86.0%
1/3	Princess Road North Ahead	U	N/A	N/A	C1:E		1	49	-	880	2115	1017	86.5%
1/4	Princess Road North Right Ahead	U	N/A	N/A	C1:E		1	49	-	878	2108	1013	86.6%
2/2+2/1	Barlow Moor Road East Left	O	N/A	N/A	C1:N		1	36	-	633	1880:1880	346+404	84.5 : 84.5%
2/4+2/3	Barlow Moor Road East Ahead	U	N/A	N/A	C1:B		1	32	-	408	1975:1975	477+203	60.0 : 60.0%
3/1	Ahead	U	N/A	N/A	C1:F		1	54	-	702	1965	1039	67.6%
3/2	Ahead	U	N/A	N/A	C1:F		1	54	-	734	2105	1113	65.9%
3/3+3/4	Right Ahead	U	N/A	N/A	C1:F		1	54	-	847	2105:1981	838+568	60.2 : 60.2%
4/1	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	42	19	271	1945	804	33.7%
4/2	Eastbound Internal Link Ahead	U	N/A	N/A	C1:D	C1:O	1	42	19	302	2085	862	35.0%
4/3	Eastbound Internal Link Right	O	N/A	N/A	C1:D		1	23	-	66	1967	309	21.3%
5/1	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	36	-	162	1945	692	23.4%
5/2	Westbound Internal Link Ahead	U	N/A	N/A	C1:C		1	36	-	158	2085	742	21.3%

Full Input Data And Results

5/3	Westbound Internal Link Right	O	N/A	N/A	C1:C		1	36	-	170	1994	369	46.0%
6/2+6/1	Barlow Moor Road West Ahead Left	U+O	N/A	N/A	C1:A		1	29	-	205	1965:2039	261+243	40.7 : 40.7%
6/3	Barlow Moor Road West Ahead	U	N/A	N/A	C1:A		1	29	-	191	2105	607	31.5%
7/1		U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	852	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	538	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	344	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	376	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	1013	Inf	Inf	0.0%
9/2	Ahead	U	N/A	N/A	-		-	-	-	1059	Inf	Inf	0.0%
9/3	Ahead	U	N/A	N/A	-		-	-	-	975	Inf	Inf	0.0%
J2: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.4%**
1/1	Left	U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
1/2	Ahead	U	2:1	N/A	C2:A		1	62	-	702	2015	1221	57.5%
1/3	Ahead	U	2:1	N/A	C2:A		1	62	-	734	2015	1221	60.1%
1/4	Ahead	U	2:1	N/A	C2:A		1	62	-	847	2015	1221	69.4%
2/1		U	N/A	N/A	-		-	-	-	1013	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	2034	Inf	Inf	0.0%
2/3		U	N/A	N/A	-		-	-	-	300	Inf	Inf	0.0%
2/4		U	N/A	N/A	-		-	-	-	300	Inf	Inf	0.0%
3/1	Ahead	U	2:2	N/A	C2:D		1	85	-	139	1380	1141	12.2%
3/2	Ahead	U	2:2	N/A	C2:D		1	85	-	398	1985	1641	24.2%
4/1	Right	U	2:1	N/A	C2:B		1	27	-	300	1985	534	56.1%
4/2	Right	U	2:1	N/A	C2:B		1	27	-	300	1985	534	56.1%
J3: Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**57.2%**

Full Input Data And Results

1/1	Ahead	U	N/A	N/A	C3:A		1	104	-	396	1945	1945	20.4%
1/2+1/3	Ahead	U	N/A	N/A	C3:C		1	77	-	600	1899:1899	803+803	37.4 : 37.4%
2/1		U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
2/2		U	N/A	N/A	-		-	-	-	556	Inf	Inf	0.0%
3/1	Ahead	U	N/A	N/A	C3:D		1	77	-	139	1975	1481	9.4%
3/2	Ahead	U	N/A	N/A	C3:D		1	77	-	398	1975	1481	26.9%
4/1	Ahead	U	N/A	N/A	C3:B		1	14	-	162	1965	283	57.2%
4/2	Ahead	U	N/A	N/A	C3:B		1	14	-	158	1965	283	55.7%

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	**-**	**-**	**727**	**872**	**2**	**51.6**	**15.7**	**0.3**	**67.5**	**-**	**-**	**-**	**-**
J1: Barlow Moor Road-Princess Road	**-**	**-**	**727**	**872**	**2**	**36.0**	**12.5**	**0.3**	**48.8**	**-**	**-**	**-**	**-**
1/2+1/1	819	819	-	-	-	5.4	3.0	-	8.4	36.8	20.7	3.0	23.7
1/3	880	880	-	-	-	5.9	3.1	-	8.9	36.6	22.5	3.1	25.6
1/4	878	878	-	-	-	5.9	3.1	-	9.0	36.7	22.4	3.1	25.5
2/2+2/1	633	633	406	860	0	5.2	2.6	-	7.8	44.1	14.1	2.6	16.7
2/4+2/3	408	408	-	-	-	3.2	0.7	-	4.0	35.2	8.4	0.7	9.1
3/1	702	702	-	-	-	1.1	0.0	-	1.1	5.6	14.5	0.0	14.5
3/2	734	734	-	-	-	1.0	0.0	-	1.0	5.0	14.8	0.0	14.8
3/3+3/4	847	847	-	-	-	0.7	0.0	-	0.7	3.1	3.2	0.0	3.2
4/1	271	271	-	-	-	1.7	0.0	-	1.7	22.5	5.0	0.0	5.0
4/2	302	302	-	-	-	1.8	0.0	-	1.8	21.7	5.3	0.0	5.3
4/3	66	66	63	3	0	0.1	0.0	0.0	0.1	7.1	1.6	0.0	1.6
5/1	162	162	-	-	-	0.4	0.0	-	0.4	8.5	1.8	0.0	1.8
5/2	158	158	-	-	-	0.4	0.0	-	0.4	9.1	1.3	0.0	1.3
5/3	170	170	160	8	2	0.0	0.0	0.3	0.3	6.1	0.0	0.0	0.0
6/2+6/1	205	205	99	0	0	1.6	0.0	0.0	1.6	29.0	4.4	0.0	4.4
6/3	191	191	-	-	-	1.5	0.0	-	1.5	29.0	4.3	0.0	4.3
7/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	538	538	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	344	344	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	376	376	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1013	1013	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	1059	1059	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

9/3	975	975	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**13.4**	**2.8**	**0.0**	**16.2**	**-**	**-**	**-**	**-**
1/1	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	702	702	-	-	-	2.4	0.7	-	3.1	15.9	12.1	0.7	12.8
1/3	734	734	-	-	-	2.6	0.8	-	3.3	16.4	13.0	0.8	13.8
1/4	847	847	-	-	-	3.3	1.1	-	4.4	18.7	16.5	1.1	17.6
2/1	1013	1013	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	2034	2034	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	300	300	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/4	300	300	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	139	139	-	-	-	0.1	0.1	-	0.1	3.5	0.8	0.1	0.8
3/2	398	398	-	-	-	0.2	0.2	-	0.4	3.4	2.4	0.2	2.6
4/1	300	300	-	-	-	2.4	0.0	-	2.4	28.9	7.4	0.0	7.4
4/2	300	300	-	-	-	2.4	0.0	-	2.4	28.9	7.4	0.0	7.4
J3: Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**2.2**	**0.4**	**0.0**	**2.6**	**-**	**-**	**-**	**-**
1/1	396	396	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2+1/3	600	600	-	-	-	0.6	0.3	-	0.9	5.7	2.5	0.3	2.8
2/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	556	556	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	139	139	-	-	-	0.1	0.0	-	0.1	2.3	0.5	0.0	0.5
3/2	398	398	-	-	-	0.3	0.0	-	0.3	2.4	1.7	0.0	1.7
4/1	162	162	-	-	-	0.6	0.0	-	0.6	13.6	4.4	0.0	4.4
4/2	158	158	-	-	-	0.6	0.0	-	0.6	13.2	4.2	0.0	4.2

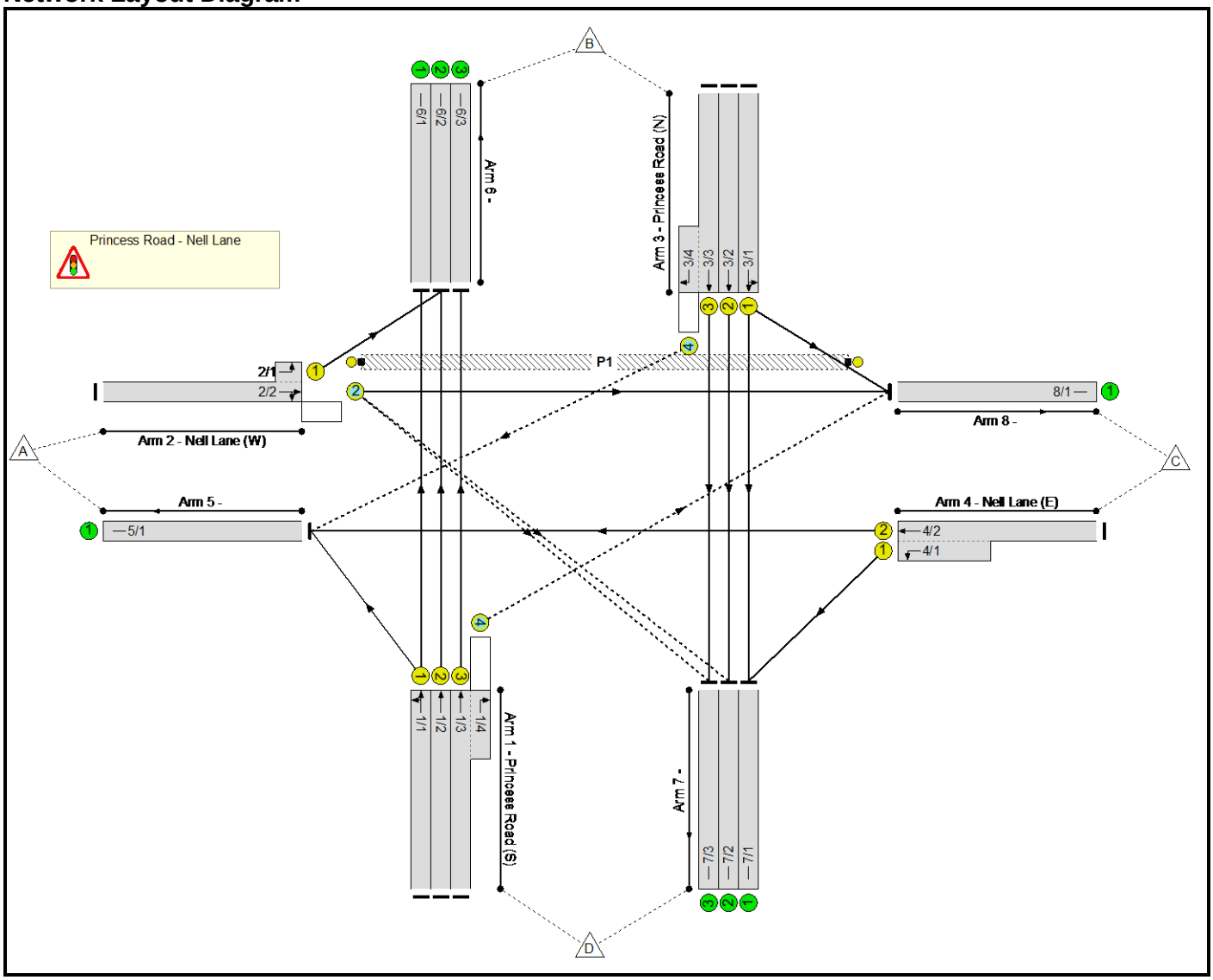
C1		PRC for Signalled Lanes (%):	3.9	Total Delay for Signalled Lanes (pcuHr):	48.76	Cycle Time (s): 104
C2	Stream: 1	PRC for Signalled Lanes (%):	29.7	Total Delay for Signalled Lanes (pcuHr):	15.65	Cycle Time (s): 104
C2	Stream: 2	PRC for Signalled Lanes (%):	271.2	Total Delay for Signalled Lanes (pcuHr):	0.51	Cycle Time (s): 104
C3		PRC for Signalled Lanes (%):	57.5	Total Delay for Signalled Lanes (pcuHr):	2.62	Cycle Time (s): 104
		PRC Over All Lanes (%):	3.9	Total Delay Over All Lanes(pcuHr):	67.54	

Full Input Data And Results

User and Project Details

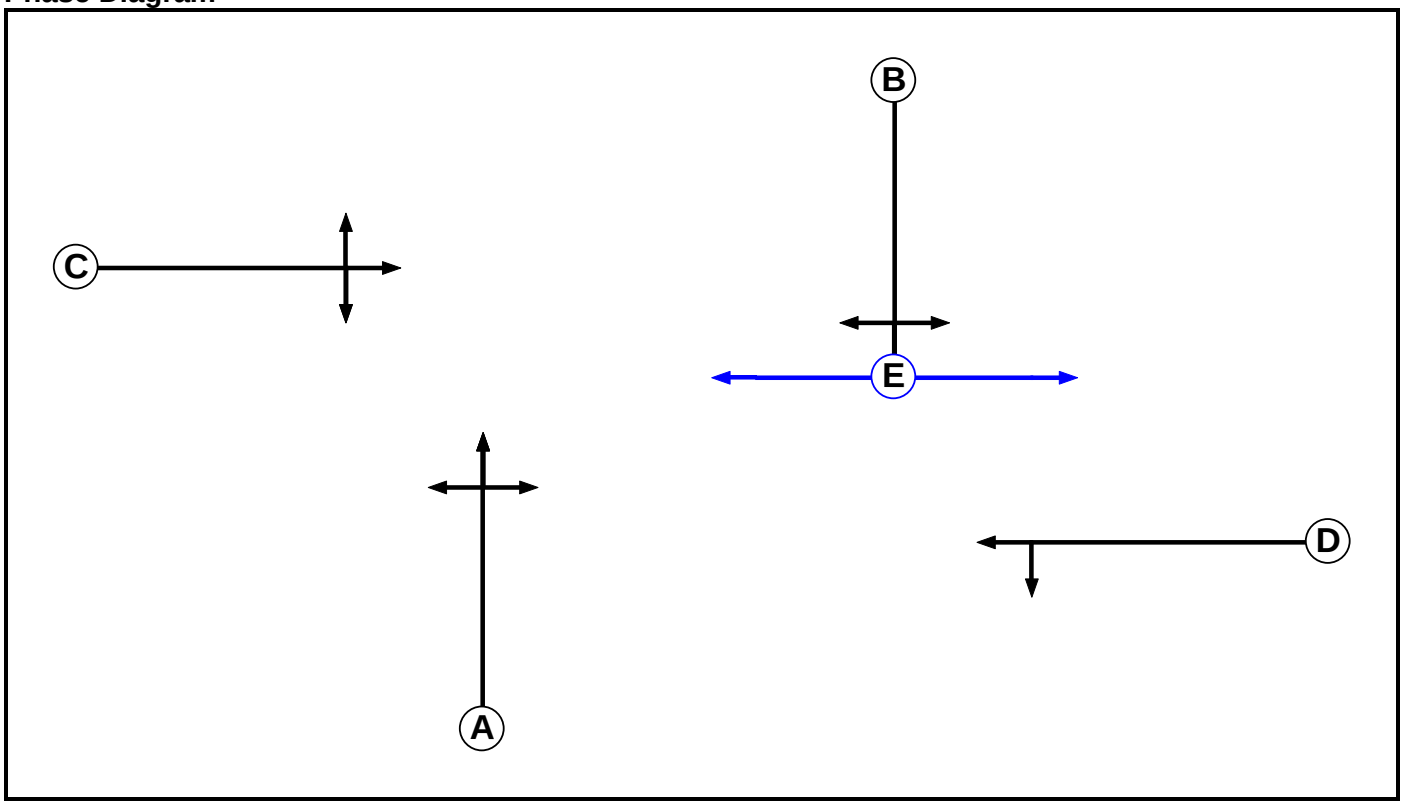
Project:	
Title:	
Location:	
Additional detail:	
File name:	Princess Road - Nell Lane (For Planning).lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	2
D	Traffic		7	2
E	Pedestrian		9	9

Phase Intergreens Matrix

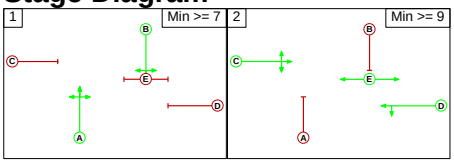
		Starting Phase				
		A	B	C	D	E
Terminating Phase	A		-	9	9	10
	B	-		9	9	9
	C	7	7		-	-
	D	7	7	-		-
	E	12	12	-	-	

Phases in Stage

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

Full Input Data And Results

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
2	1	C	Losing	5	5
2	1	D	Losing	5	5

Prohibited Stage Change

	To Stage		
From Stage		1	2
	1		10
	2	12	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Princess Road - Nell Lane											
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)**
1/4 (Princess Road (S))	8/1 (Right)	1439	0	3/1	1.09	All	4.00	-	0.50	4	4.00
				3/2	1.09	All					
				3/3	1.09	All					
2/2 (Nell Lane (W))	7/2 (Right)	1439	0	4/2	1.09	All	3.00	3.00	0.50	3	3.00
	7/3 (Right)	1439	0	4/2	1.09	All					
3/4 (Princess Road (N))	5/1 (Right)	1439	0	1/1	1.09	All	3.00	-	0.50	3	3.00
				1/2	1.09	All					
				1/3	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: Princess Road - Nell Lane

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 (Princess Road (S))	U	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 5 Left	25.00
											Arm 6 Ahead	Inf
1/2 (Princess Road (S))	U	A	2	3	60.0	Geom	-	3.25	0.00	N	Arm 6 Ahead	Inf
1/3 (Princess Road (S))	U	A	2	3	60.0	Geom	-	3.25	0.00	N	Arm 6 Ahead	Inf
1/4 (Princess Road (S))	O	A	2	3	5.2	Geom	-	3.25	0.00	Y	Arm 8 Right	20.00
2/1 (Nell Lane (W))	U	C	2	3	2.0	Geom	-	5.00	0.00	Y	Arm 6 Left	10.00
2/2 (Nell Lane (W))	O	C	2	3	60.0	Geom	-	5.00	0.00	Y	Arm 7 Right	30.00
											Arm 8 Ahead	Inf
3/1 (Princess Road (N))	U	B	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 7 Ahead	Inf
											Arm 8 Left	20.00
3/2 (Princess Road (N))	U	B	2	3	60.0	Geom	-	3.30	0.00	N	Arm 7 Ahead	Inf
3/3 (Princess Road (N))	U	B	2	3	60.0	Geom	-	3.30	0.00	N	Arm 7 Ahead	Inf
3/4 (Princess Road (N))	O	B	2	3	5.0	Geom	-	3.30	0.00	Y	Arm 5 Right	15.00
4/1 (Nell Lane (E))	U	D	2	3	7.0	Geom	-	3.40	0.00	Y	Arm 7 Left	12.00
4/2 (Nell Lane (E))	U	D	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 5 Ahead	Inf
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/3	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/3	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Base'	08:00	09:00	01:00	
2: 'PM Base'	17:00	18:00	01:00	
3: 'AM Base + D1'	08:00	09:00	01:00	
4: 'PM Base + D1'	17:00	18:00	01:00	
5: 'AM Base + D1 + Meanwhile Use'	08:00	09:00	01:00	
6: 'PM Base + D1 + Meanwhile Use'	17:00	18:00	01:00	

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

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	59	110	213	382
	B	76	0	72	1730	1878
	C	110	0	0	143	253
	D	145	2004	156	0	2305
	Tot.	331	2063	338	2086	4818

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: AM Base
Junction: Princess Road - Nell Lane	
1/1	1026
1/2	1122
1/3 (with short)	157(In) 1(Out)
1/4 (short)	156
2/1 (short)	59
2/2 (with short)	382(In) 323(Out)
3/1	578
3/2	647
3/3 (with short)	653(In) 577(Out)
3/4 (short)	76
4/1 (short)	143
4/2 (with short)	253(In) 110(Out)
5/1	331
6/1	881
6/2	1181
6/3	1
7/1	649
7/2	754
7/3	683
8/1	338

Full Input Data And Results

Lane Saturation Flows

Junction: Princess Road - Nell Lane								
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 (Princess Road (S))	3.25	0.00	Y	Arm 5 Left	25.00	14.1 %	1924	1924
				Arm 6 Ahead	Inf	85.9 %		
1/2 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/3 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/4 (Princess Road (S))	3.25	0.00	Y	Arm 8 Right	20.00	100.0 %	1805	1805
2/1 (Nell Lane (W))	5.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1839	1839
2/2 (Nell Lane (W))	5.00	0.00	Y	Arm 7 Right	30.00	65.9 %	2047	2047
				Arm 8 Ahead	Inf	34.1 %		
3/1 (Princess Road (N))	3.30	0.00	Y	Arm 7 Ahead	Inf	87.5 %	1927	1927
				Arm 8 Left	20.00	12.5 %		
3/2 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/3 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/4 (Princess Road (N))	3.30	0.00	Y	Arm 5 Right	15.00	100.0 %	1768	1768
4/1 (Nell Lane (E))	3.40	0.00	Y	Arm 7 Left	12.00	100.0 %	1738	1738
4/2 (Nell Lane (E))	4.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2015	2015
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

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

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	78	119	243	440
	B	58	0	40	2189	2287
	C	104	0	0	133	237
	D	209	1882	95	0	2186
	Tot.	371	1960	254	2565	5150

Traffic Lane Flows

Lane	Scenario 2: PM Base
Junction: Princess Road - Nell Lane	
1/1	675
1/2	744
1/3 (with short)	767(In) 672(Out)
1/4 (short)	95
2/1 (short)	78
2/2 (with short)	440(In) 362(Out)
3/1	716
3/2	784
3/3 (with short)	787(In) 729(Out)
3/4 (short)	58
4/1 (short)	133
4/2 (with short)	237(In) 104(Out)
5/1	371
6/1	466
6/2	822
6/3	672
7/1	809
7/2	906
7/3	850
8/1	254

Full Input Data And Results

Lane Saturation Flows

Junction: Princess Road - Nell Lane								
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 (Princess Road (S))	3.25	0.00	Y	Arm 5 Left	25.00	31.0 %	1905	1905
				Arm 6 Ahead	Inf	69.0 %		
1/2 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/3 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/4 (Princess Road (S))	3.25	0.00	Y	Arm 8 Right	20.00	100.0 %	1805	1805
2/1 (Nell Lane (W))	5.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1839	1839
2/2 (Nell Lane (W))	5.00	0.00	Y	Arm 7 Right	30.00	67.1 %	2046	2046
				Arm 8 Ahead	Inf	32.9 %		
3/1 (Princess Road (N))	3.30	0.00	Y	Arm 7 Ahead	Inf	94.4 %	1937	1937
				Arm 8 Left	20.00	5.6 %		
3/2 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/3 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/4 (Princess Road (N))	3.30	0.00	Y	Arm 5 Right	15.00	100.0 %	1768	1768
4/1 (Nell Lane (E))	3.40	0.00	Y	Arm 7 Left	12.00	100.0 %	1738	1738
4/2 (Nell Lane (E))	4.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2015	2015
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'AM Base + D1' (FG3: 'AM Base + D1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	59	110	223	392
	B	76	0	72	1744	1892
	C	110	0	0	143	253
	D	146	2005	156	0	2307
	Tot.	332	2064	338	2110	4844

Traffic Lane Flows

Lane	Scenario 3: AM Base + D1
Junction: Princess Road - Nell Lane	
1/1	1027
1/2	1123
1/3 (with short)	157(In) 1(Out)
1/4 (short)	156
2/1 (short)	59
2/2 (with short)	392(In) 333(Out)
3/1	583
3/2	651
3/3 (with short)	658(In) 582(Out)
3/4 (short)	76
4/1 (short)	143
4/2 (with short)	253(In) 110(Out)
5/1	332
6/1	881
6/2	1182
6/3	1
7/1	654
7/2	763
7/3	693
8/1	338

Full Input Data And Results

Lane Saturation Flows

Junction: Princess Road - Nell Lane								
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 (Princess Road (S))	3.25	0.00	Y	Arm 5 Left	25.00	14.2 %	1924	1924
				Arm 6 Ahead	Inf	85.8 %		
1/2 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/3 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/4 (Princess Road (S))	3.25	0.00	Y	Arm 8 Right	20.00	100.0 %	1805	1805
2/1 (Nell Lane (W))	5.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1839	1839
2/2 (Nell Lane (W))	5.00	0.00	Y	Arm 7 Right	30.00	67.0 %	2046	2046
				Arm 8 Ahead	Inf	33.0 %		
3/1 (Princess Road (N))	3.30	0.00	Y	Arm 7 Ahead	Inf	87.7 %	1927	1927
				Arm 8 Left	20.00	12.3 %		
3/2 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/3 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/4 (Princess Road (N))	3.30	0.00	Y	Arm 5 Right	15.00	100.0 %	1768	1768
4/1 (Nell Lane (E))	3.40	0.00	Y	Arm 7 Left	12.00	100.0 %	1738	1738
4/2 (Nell Lane (E))	4.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2015	2015
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: 'PM Base + D1' (FG4: 'PM Base + D1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	78	119	244	441
	B	58	0	40	2190	2288
	C	104	0	0	133	237
	D	218	1894	95	0	2207
	Tot.	380	1972	254	2567	5173

Traffic Lane Flows

Lane	Scenario 4: PM Base + D1
Junction: Princess Road - Nell Lane	
1/1	674
1/2	754
1/3 (with short)	779(In) 684(Out)
1/4 (short)	95
2/1 (short)	78
2/2 (with short)	441(In) 363(Out)
3/1	716
3/2	784
3/3 (with short)	788(In) 730(Out)
3/4 (short)	58
4/1 (short)	133
4/2 (with short)	237(In) 104(Out)
5/1	380
6/1	456
6/2	832
6/3	684
7/1	809
7/2	906
7/3	852
8/1	254

Full Input Data And Results

Lane Saturation Flows

Junction: Princess Road - Nell Lane								
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 (Princess Road (S))	3.25	0.00	Y	Arm 5 Left	25.00	32.3 %	1903	1903
				Arm 6 Ahead	Inf	67.7 %		
1/2 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/3 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/4 (Princess Road (S))	3.25	0.00	Y	Arm 8 Right	20.00	100.0 %	1805	1805
2/1 (Nell Lane (W))	5.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1839	1839
2/2 (Nell Lane (W))	5.00	0.00	Y	Arm 7 Right	30.00	67.2 %	2046	2046
				Arm 8 Ahead	Inf	32.8 %		
3/1 (Princess Road (N))	3.30	0.00	Y	Arm 7 Ahead	Inf	94.4 %	1937	1937
				Arm 8 Left	20.00	5.6 %		
3/2 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/3 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/4 (Princess Road (N))	3.30	0.00	Y	Arm 5 Right	15.00	100.0 %	1768	1768
4/1 (Nell Lane (E))	3.40	0.00	Y	Arm 7 Left	12.00	100.0 %	1738	1738
4/2 (Nell Lane (E))	4.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2015	2015
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: 'AM Base + D1 + Meanwhile Use' (FG5: 'AM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	59	110	228	397
	B	76	0	72	1750	1898
	C	110	0	0	143	253
	D	147	2006	156	0	2309
	Tot.	333	2065	338	2121	4857

Traffic Lane Flows

Lane	Scenario 5: AM Base + D1 + Meanwhile Use
Junction: Princess Road - Nell Lane	
1/1	1028
1/2	1124
1/3 (with short)	157(In) 1(Out)
1/4 (short)	156
2/1 (short)	59
2/2 (with short)	397(In) 338(Out)
3/1	585
3/2	653
3/3 (with short)	660(In) 584(Out)
3/4 (short)	76
4/1 (short)	143
4/2 (with short)	253(In) 110(Out)
5/1	333
6/1	881
6/2	1183
6/3	1
7/1	656
7/2	767
7/3	698
8/1	338

Full Input Data And Results

Lane Saturation Flows

Junction: Princess Road - Nell Lane								
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 (Princess Road (S))	3.25	0.00	Y	Arm 5 Left	25.00	14.3 %	1923	1923
				Arm 6 Ahead	Inf	85.7 %		
1/2 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/3 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/4 (Princess Road (S))	3.25	0.00	Y	Arm 8 Right	20.00	100.0 %	1805	1805
2/1 (Nell Lane (W))	5.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1839	1839
2/2 (Nell Lane (W))	5.00	0.00	Y	Arm 7 Right	30.00	67.5 %	2046	2046
				Arm 8 Ahead	Inf	32.5 %		
3/1 (Princess Road (N))	3.30	0.00	Y	Arm 7 Ahead	Inf	87.7 %	1927	1927
				Arm 8 Left	20.00	12.3 %		
3/2 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/3 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/4 (Princess Road (N))	3.30	0.00	Y	Arm 5 Right	15.00	100.0 %	1768	1768
4/1 (Nell Lane (E))	3.40	0.00	Y	Arm 7 Left	12.00	100.0 %	1738	1738
4/2 (Nell Lane (E))	4.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2015	2015
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: 'PM Base + D1 + Meanwhile Use' (FG6: 'PM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	78	119	244	441
	B	58	0	40	2191	2289
	C	104	0	0	133	237
	D	222	1899	95	0	2216
	Tot.	384	1977	254	2568	5183

Traffic Lane Flows

Lane	Scenario 6: PM Base + D1 + Meanwhile Use
Junction: Princess Road - Nell Lane	
1/1	677
1/2	757
1/3 (with short)	782(In) 687(Out)
1/4 (short)	95
2/1 (short)	78
2/2 (with short)	441(In) 363(Out)
3/1	718
3/2	783
3/3 (with short)	788(In) 730(Out)
3/4 (short)	58
4/1 (short)	133
4/2 (with short)	237(In) 104(Out)
5/1	384
6/1	455
6/2	835
6/3	687
7/1	811
7/2	905
7/3	852
8/1	254

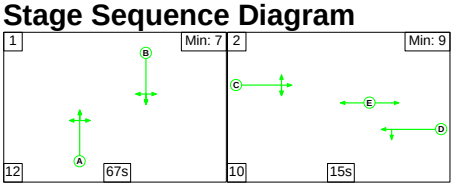
Full Input Data And Results

Lane Saturation Flows

Junction: Princess Road - Nell Lane								
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 (Princess Road (S))	3.25	0.00	Y	Arm 5 Left	25.00	32.8 %	1903	1903
				Arm 6 Ahead	Inf	67.2 %		
1/2 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/3 (Princess Road (S))	3.25	0.00	N	Arm 6 Ahead	Inf	100.0 %	2080	2080
1/4 (Princess Road (S))	3.25	0.00	Y	Arm 8 Right	20.00	100.0 %	1805	1805
2/1 (Nell Lane (W))	5.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1839	1839
2/2 (Nell Lane (W))	5.00	0.00	Y	Arm 7 Right	30.00	67.2 %	2046	2046
				Arm 8 Ahead	Inf	32.8 %		
3/1 (Princess Road (N))	3.30	0.00	Y	Arm 7 Ahead	Inf	94.4 %	1937	1937
				Arm 8 Left	20.00	5.6 %		
3/2 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/3 (Princess Road (N))	3.30	0.00	N	Arm 7 Ahead	Inf	100.0 %	2085	2085
3/4 (Princess Road (N))	3.30	0.00	Y	Arm 5 Right	15.00	100.0 %	1768	1768
4/1 (Nell Lane (E))	3.40	0.00	Y	Arm 7 Left	12.00	100.0 %	1738	1738
4/2 (Nell Lane (E))	4.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2015	2015
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

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

Stage Sequence Diagram

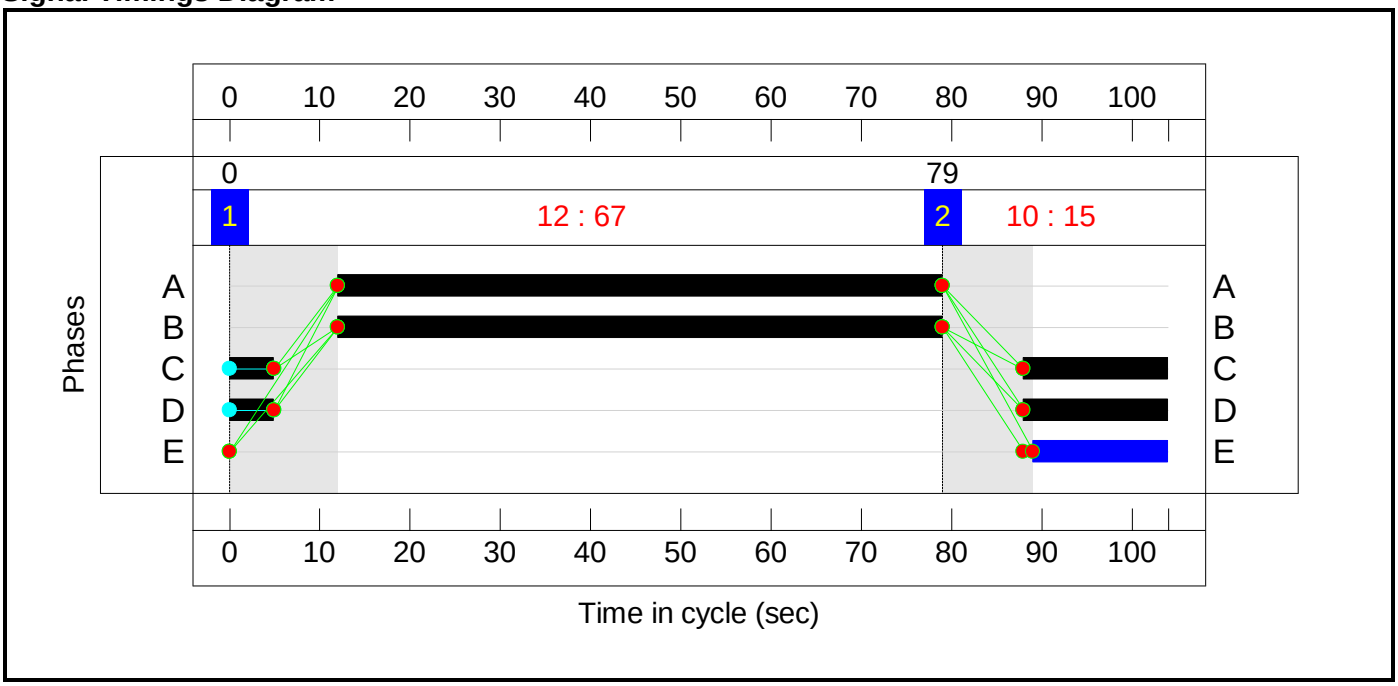


Full Input Data And Results

Stage Timings

Stage	1	2
Duration	67	15
Change Point	0	79

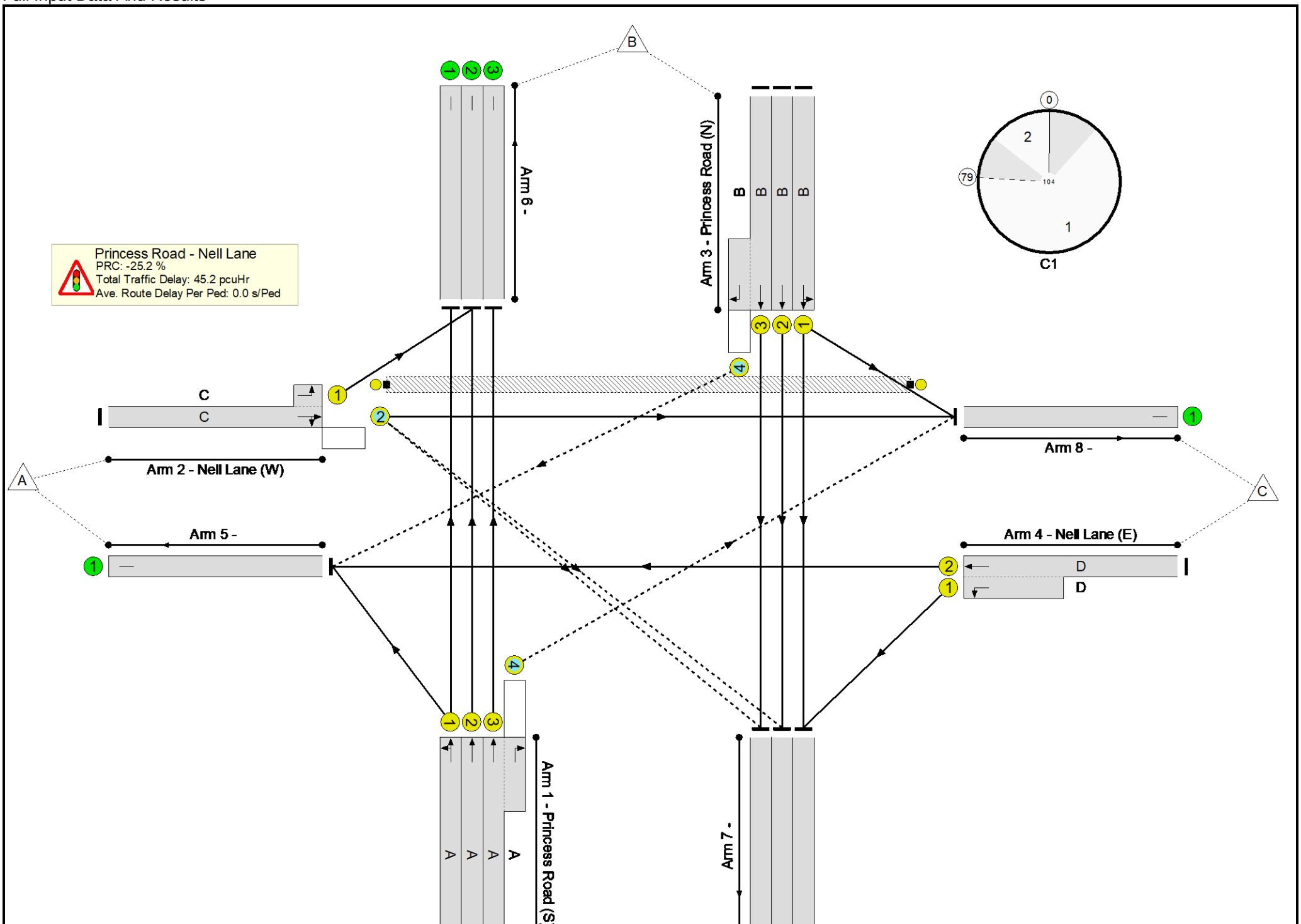
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**112.7%**
Princess Road - Nell Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**112.7%**
1/1	Princess Road (S) Left Ahead	U	N/A	N/A	A		1	67	-	1026	1924	1258	81.6%
1/2	Princess Road (S) Ahead	U	N/A	N/A	A		1	67	-	1122	2080	1360	82.5%
1/3+1/4	Princess Road (S) Ahead Right	U+O	N/A	N/A	A		1	67	-	157	2080:1805	1+138	112.7 : 112.7%
2/2+2/1	Nell Lane (W) Left Right Ahead	O+U	N/A	N/A	C		1	21	-	382	2047:1839	364+66	88.8 : 88.8%
3/1	Princess Road (N) Ahead Left	U	N/A	N/A	B		1	67	-	578	1927	1260	45.9%
3/2	Princess Road (N) Ahead	U	N/A	N/A	B		1	67	-	647	2085	1363	47.5%
3/3+3/4	Princess Road (N) Right Ahead	U+O	N/A	N/A	B		1	67	-	653	2085:1768	1196+104	48.2 : 73.2%
4/2+4/1	Nell Lane (E) Ahead Left	U	N/A	N/A	D		1	21	-	253	2015:1738	248+323	44.3 : 44.3%
5/1		U	N/A	N/A	-		-	-	-	331	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	881	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1181	Inf	Inf	0.0%
6/3		U	N/A	N/A	-		-	-	-	1	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	649	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	754	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	683	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	15	-	0	-	0	0.0%

Full Input Data And Results

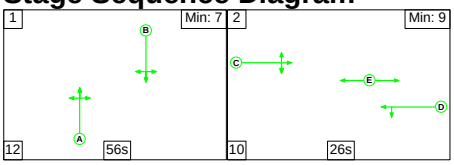
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**211**	**0**	**217**	**20.0**	**21.8**	**3.4**	**45.2**	**-**	**-**	**-**	**-**
Princess Road - Nell Lane	**-**	**-**	**211**	**0**	**217**	**20.0**	**21.8**	**3.4**	**45.2**	**-**	**-**	**-**	**-**
1/1	1026	1026	-	-	-	3.8	2.2	-	6.0	21.0	21.9	2.2	24.1
1/2	1122	1122	-	-	-	4.2	2.3	-	6.5	20.9	24.3	2.3	26.6
1/3+1/4	157	139	0	0	138	0.7	12.1	2.2	15.0	344.5	2.2	12.1	14.3
2/2+2/1	382	382	211	0	2	4.2	3.5	0.2	7.8	73.9	10.2	3.5	13.7
3/1	578	578	-	-	-	1.4	0.4	-	1.9	11.5	8.2	0.4	8.6
3/2	647	647	-	-	-	1.6	0.5	-	2.1	11.5	9.3	0.5	9.8
3/3+3/4	653	653	0	0	76	1.6	0.5	1.0	3.0	16.7	8.6	0.5	9.1
4/2+4/1	253	253	-	-	-	2.4	0.4	-	2.8	40.4	3.5	0.4	3.9
5/1	331	331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	881	881	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1181	1181	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/3	1	1	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	649	649	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	754	754	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	320	320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -25.2 Total Delay for Signalled Lanes (pcuHr): 45.17 Cycle Time (s): 104
PRC Over All Lanes (%): -25.2 Total Delay Over All Lanes(pcuHr): 45.17

Full Input Data And Results

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

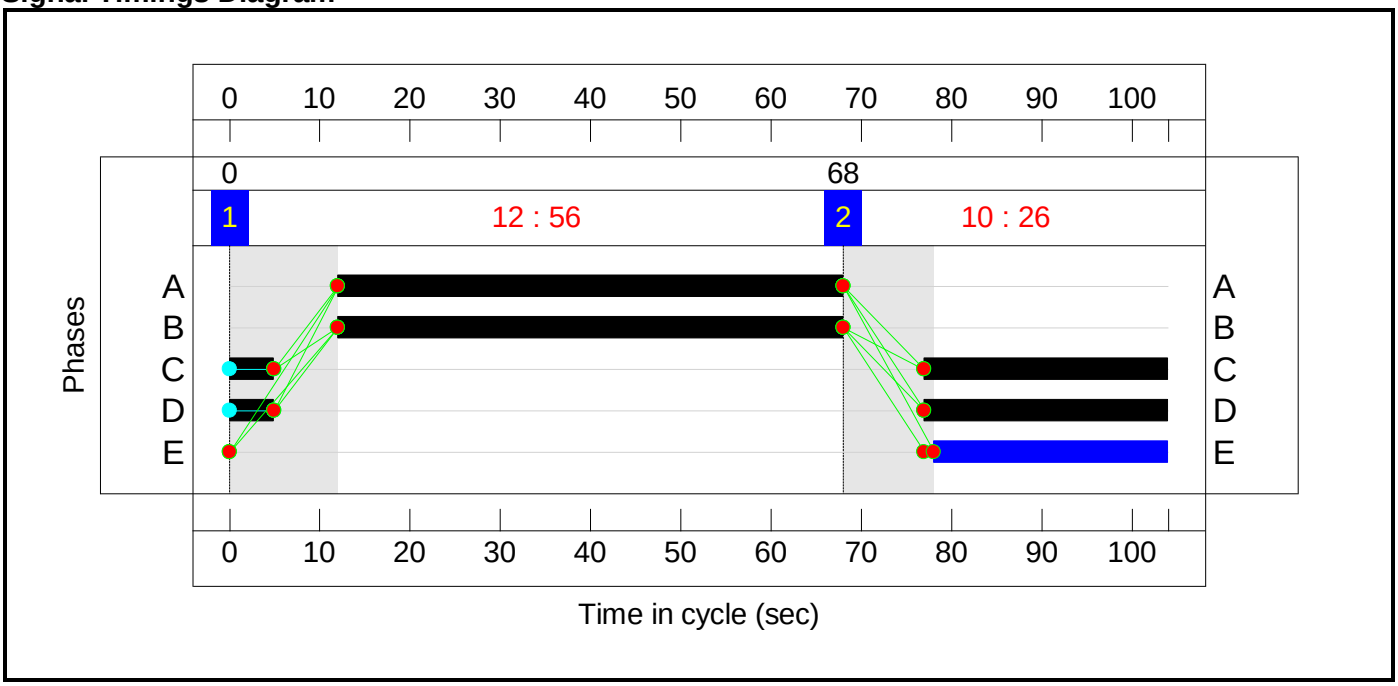
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	56	26
Change Point	0	68

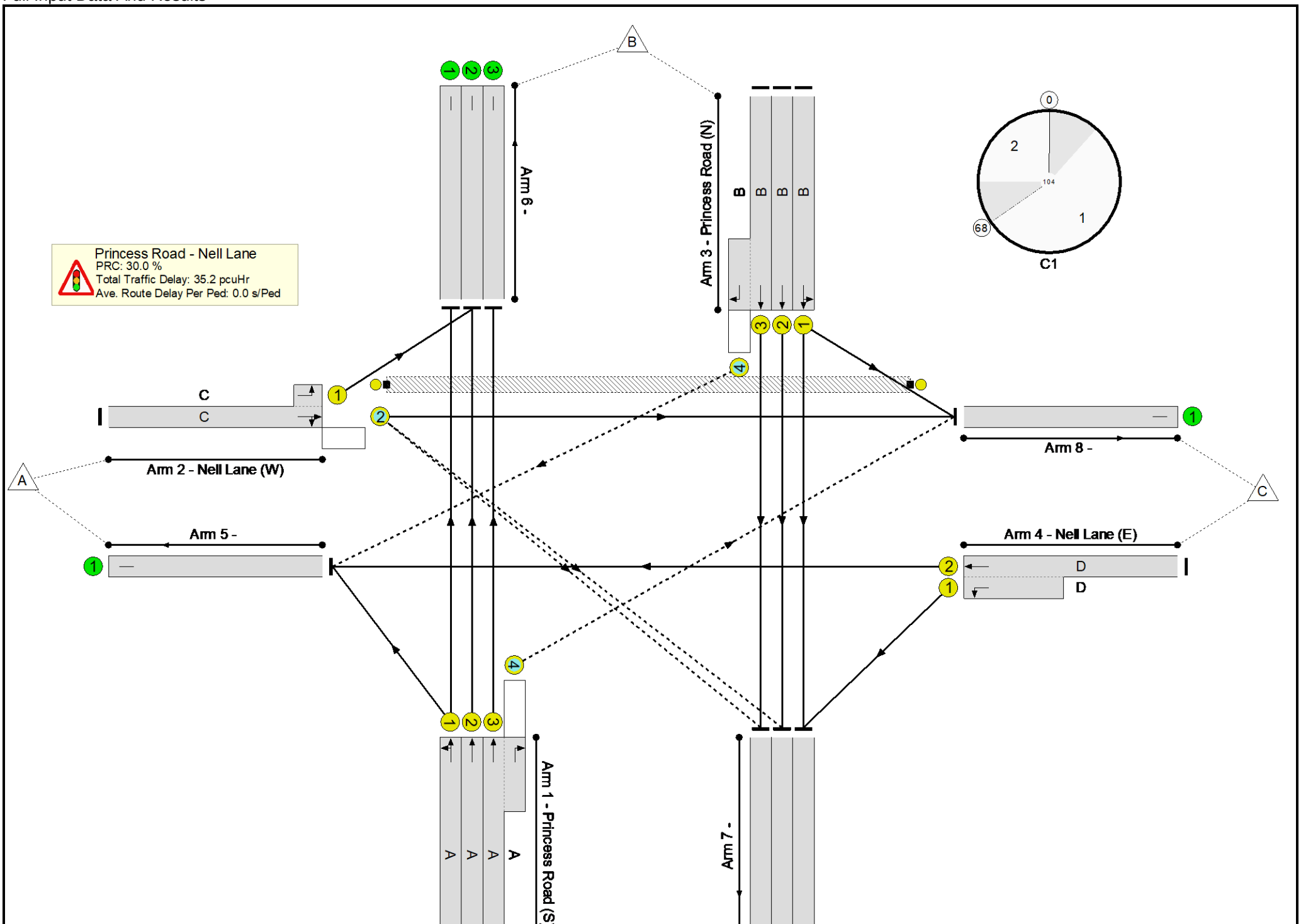
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.2%**
Princess Road - Nell Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.2%**
1/1	Princess Road (S) Left Ahead	U	N/A	N/A	A		1	56	-	675	1905	1044	64.6%
1/2	Princess Road (S) Ahead	U	N/A	N/A	A		1	56	-	744	2080	1140	65.3%
1/3+1/4	Princess Road (S) Ahead Right	U+O	N/A	N/A	A		1	56	-	767	2080:1805	1002+138	67.0 : 68.6%
2/2+2/1	Nell Lane (W) Left Right Ahead	O+U	N/A	N/A	C		1	32	-	440	2046:1839	529+114	68.4 : 68.4%
3/1	Princess Road (N) Ahead Left	U	N/A	N/A	B		1	56	-	716	1937	1062	67.4%
3/2	Princess Road (N) Ahead	U	N/A	N/A	B		1	56	-	784	2085	1143	68.6%
3/3+3/4	Princess Road (N) Right Ahead	U+O	N/A	N/A	B		1	56	-	787	2085:1768	1053+84	69.2 : 69.2%
4/2+4/1	Nell Lane (E) Ahead Left	U	N/A	N/A	D		1	32	-	237	2015:1738	338+432	30.8 : 30.8%
5/1		U	N/A	N/A	-		-	-	-	371	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	466	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	822	Inf	Inf	0.0%
6/3		U	N/A	N/A	-		-	-	-	672	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	809	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	906	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	850	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	254	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	26	-	0	-	0	0.0%

Full Input Data And Results

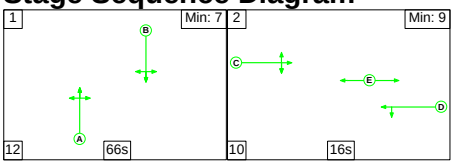
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**241**	**0**	**155**	**26.1**	**7.4**	**1.7**	**35.2**	**-**	**-**	**-**	**-**
Princess Road - Nell Lane	**-**	**-**	**241**	**0**	**155**	**26.1**	**7.4**	**1.7**	**35.2**	**-**	**-**	**-**	**-**
1/1	675	675	-	-	-	3.1	0.9	-	4.0	21.3	13.5	0.9	14.4
1/2	744	744	-	-	-	3.4	0.9	-	4.4	21.1	15.1	0.9	16.0
1/3+1/4	767	767	0	0	95	3.4	1.0	1.0	5.4	25.6	14.8	1.0	15.8
2/2+2/1	440	440	241	0	2	3.8	1.1	0.1	4.9	40.3	10.6	1.1	11.6
3/1	716	716	-	-	-	3.4	1.0	-	4.4	22.0	14.7	1.0	15.7
3/2	784	784	-	-	-	3.7	1.1	-	4.8	22.0	16.3	1.1	17.4
3/3+3/4	787	787	0	0	58	3.7	1.1	0.6	5.4	24.6	16.0	1.1	17.1
4/2+4/1	237	237	-	-	-	1.7	0.2	-	1.9	29.3	2.8	0.2	3.0
5/1	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	466	466	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	822	822	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/3	672	672	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	906	906	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	850	850	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	254	254	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 30.0 Total Delay for Signalled Lanes (pcuHr): 35.21 Cycle Time (s): 104
PRC Over All Lanes (%): 30.0 Total Delay Over All Lanes(pcuHr): 35.21

Full Input Data And Results

Scenario 3: 'AM Base + D1' (FG3: 'AM Base + D1', Plan 1: 'Network Control Plan 1')

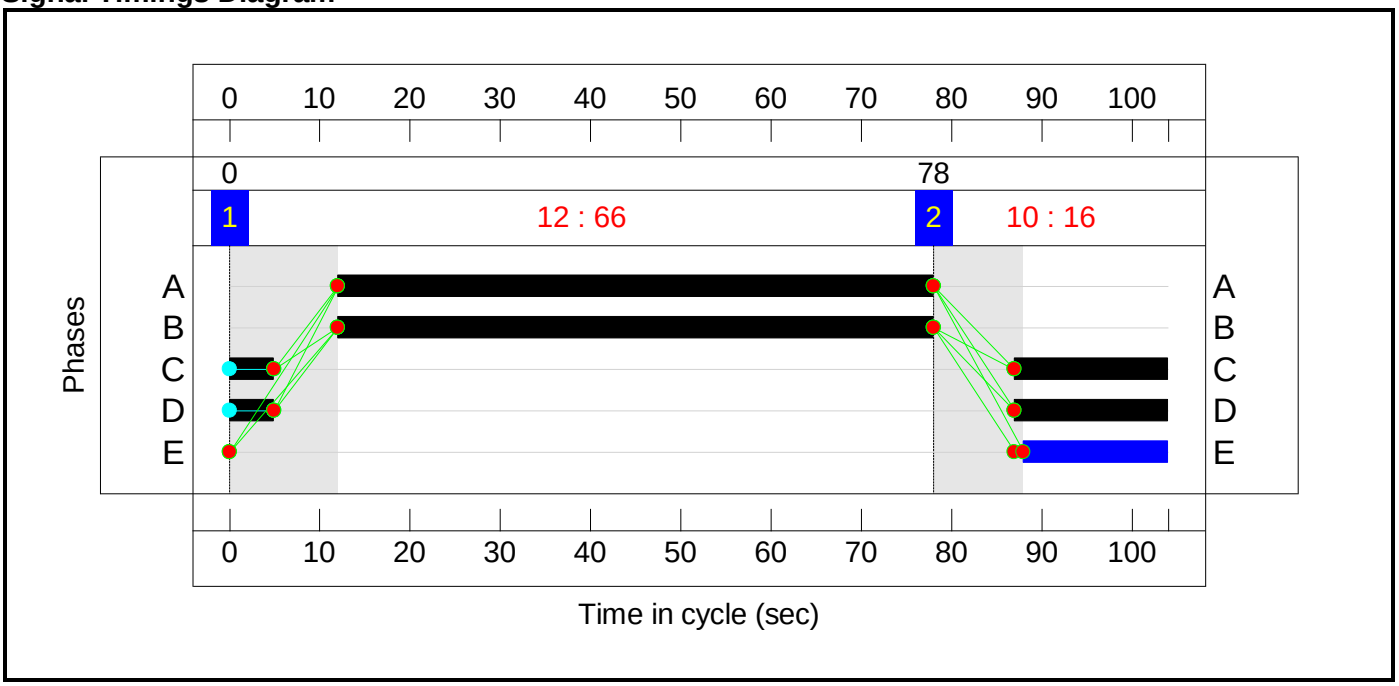
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	66	16
Change Point	0	78

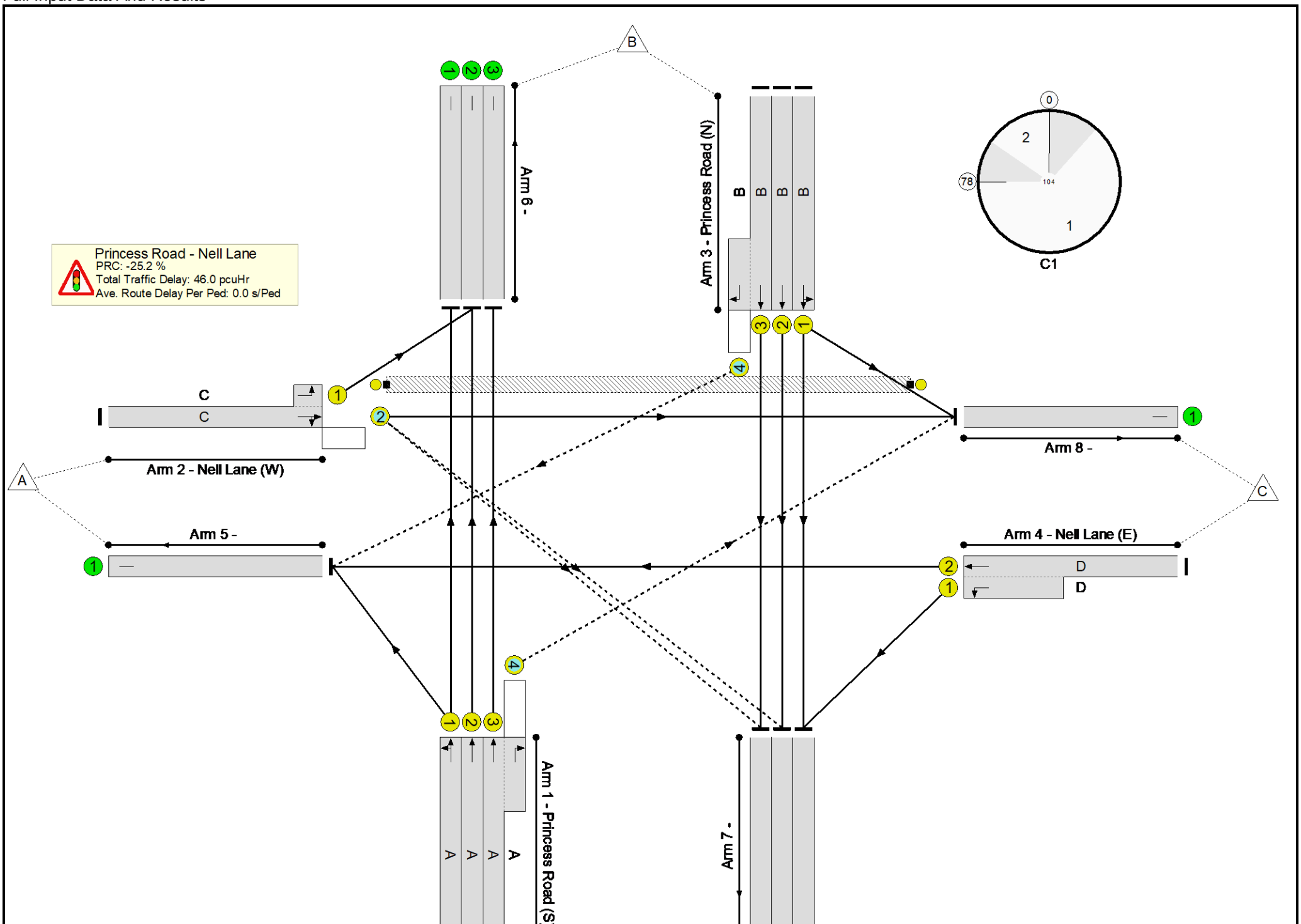
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**112.7%**
Princess Road - Nell Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**112.7%**
1/1	Princess Road (S) Left Ahead	U	N/A	N/A	A		1	66	-	1027	1924	1239	82.9%
1/2	Princess Road (S) Ahead	U	N/A	N/A	A		1	66	-	1123	2080	1340	83.8%
1/3+1/4	Princess Road (S) Ahead Right	U+O	N/A	N/A	A		1	66	-	157	2080:1805	1+138	112.7 : 112.7%
2/2+2/1	Nell Lane (W) Left Right Ahead	O+U	N/A	N/A	C		1	22	-	392	2046:1839	381+68	87.3 : 87.3%
3/1	Princess Road (N) Ahead Left	U	N/A	N/A	B		1	66	-	583	1927	1241	47.0%
3/2	Princess Road (N) Ahead	U	N/A	N/A	B		1	66	-	651	2085	1343	48.5%
3/3+3/4	Princess Road (N) Right Ahead	U+O	N/A	N/A	B		1	66	-	658	2085:1768	1181+104	49.3 : 73.2%
4/2+4/1	Nell Lane (E) Ahead Left	U	N/A	N/A	D		1	22	-	253	2015:1738	256+333	43.0 : 43.0%
5/1		U	N/A	N/A	-		-	-	-	332	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	881	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1182	Inf	Inf	0.0%
6/3		U	N/A	N/A	-		-	-	-	1	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	654	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	763	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	16	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**221**	**0**	**217**	**20.8**	**21.9**	**3.3**	**46.0**	**-**	**-**	**-**	**-**
Princess Road - Nell Lane	**-**	**-**	**221**	**0**	**217**	**20.8**	**21.9**	**3.3**	**46.0**	**-**	**-**	**-**	**-**
1/1	1027	1027	-	-	-	4.0	2.4	-	6.4	22.4	22.5	2.4	24.9
1/2	1123	1123	-	-	-	4.5	2.5	-	7.0	22.4	25.0	2.5	27.5
1/3+1/4	157	139	0	0	138	0.7	12.1	2.2	15.0	344.6	2.3	12.1	14.4
2/2+2/1	392	392	221	0	2	4.2	3.1	0.2	7.5	69.0	10.5	3.1	13.6
3/1	583	583	-	-	-	1.5	0.4	-	2.0	12.2	8.6	0.4	9.0
3/2	651	651	-	-	-	1.7	0.5	-	2.2	12.2	9.6	0.5	10.1
3/3+3/4	658	658	0	0	76	1.7	0.5	0.9	3.2	17.3	9.0	0.5	9.6
4/2+4/1	253	253	-	-	-	2.4	0.4	-	2.8	39.3	3.5	0.4	3.9
5/1	332	332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	881	881	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1182	1182	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/3	1	1	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	654	654	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	763	763	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	320	320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-

C1

PRC for Signalled Lanes (%): -25.2
PRC Over All Lanes (%): -25.2

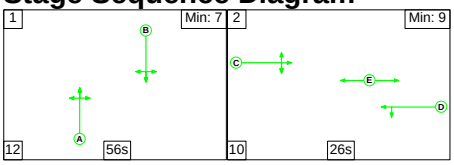
Total Delay for Signalled Lanes (pcuHr): 46.01
Total Delay Over All Lanes(pcuHr): 46.01

Cycle Time (s): 104

Full Input Data And Results

Scenario 4: 'PM Base + D1' (FG4: 'PM Base + D1', Plan 1: 'Network Control Plan 1')

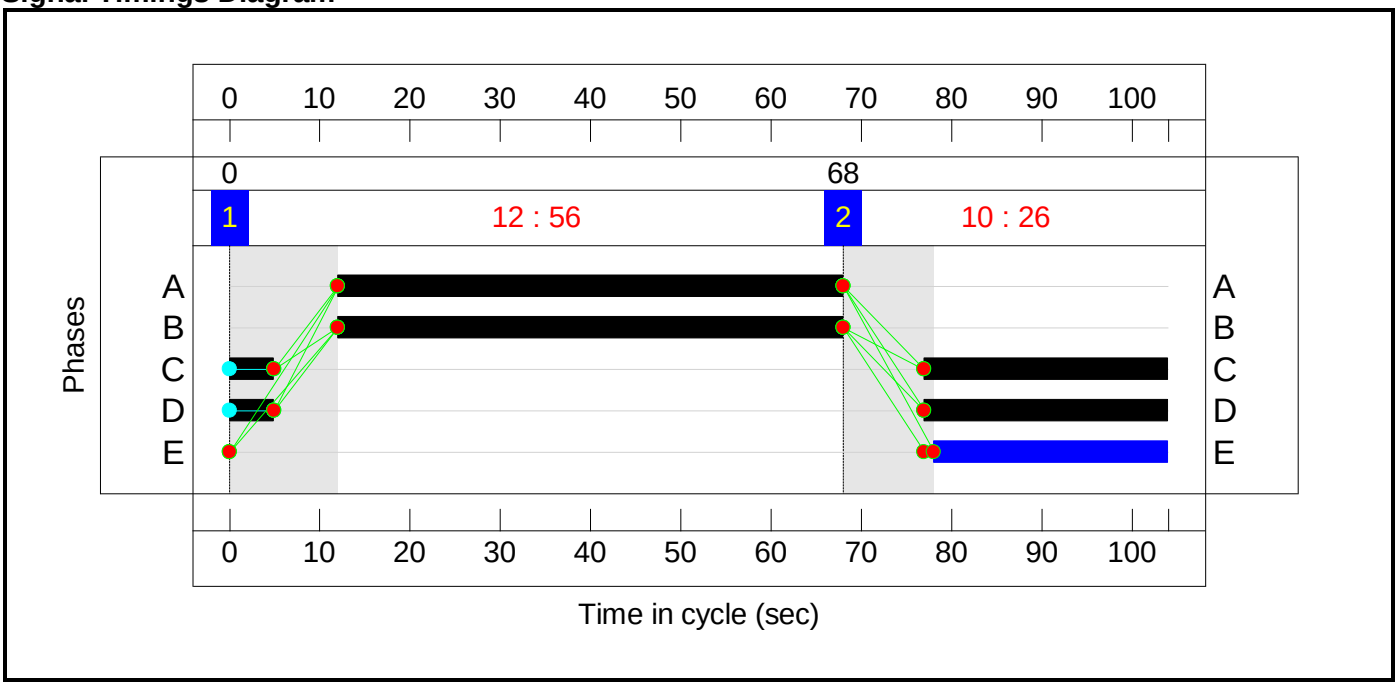
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	56	26
Change Point	0	68

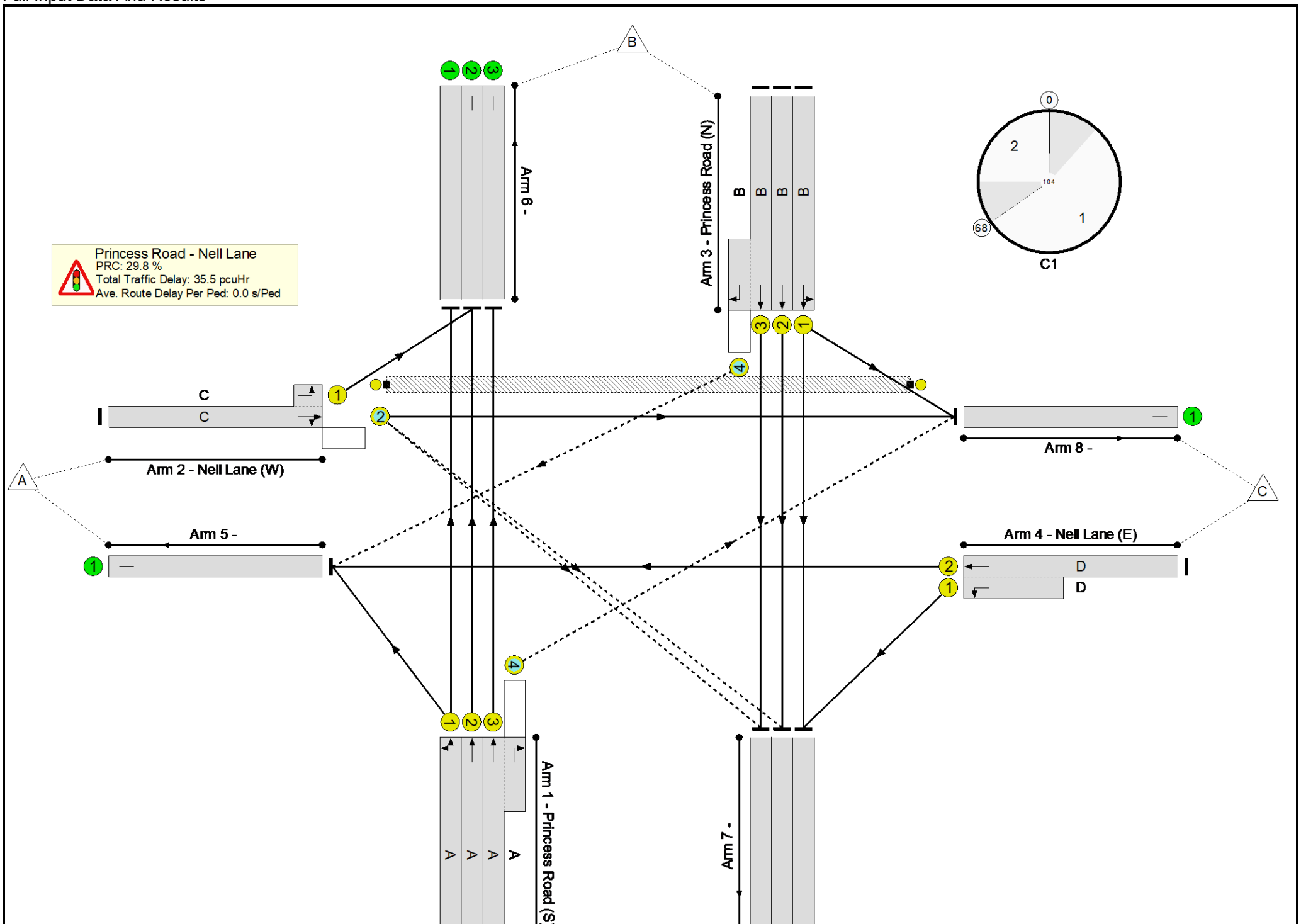
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.3%**
Princess Road - Nell Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.3%**
1/1	Princess Road (S) Left Ahead	U	N/A	N/A	A		1	56	-	674	1903	1043	64.6%
1/2	Princess Road (S) Ahead	U	N/A	N/A	A		1	56	-	754	2080	1140	66.1%
1/3+1/4	Princess Road (S) Ahead Right	U+O	N/A	N/A	A		1	56	-	779	2080:1805	1004+138	68.1 : 68.6%
2/2+2/1	Nell Lane (W) Left Right Ahead	O+U	N/A	N/A	C		1	32	-	441	2046:1839	530+114	68.5 : 68.5%
3/1	Princess Road (N) Ahead Left	U	N/A	N/A	B		1	56	-	716	1937	1062	67.4%
3/2	Princess Road (N) Ahead	U	N/A	N/A	B		1	56	-	784	2085	1143	68.6%
3/3+3/4	Princess Road (N) Right Ahead	U+O	N/A	N/A	B		1	56	-	788	2085:1768	1053+84	69.3 : 69.3%
4/2+4/1	Nell Lane (E) Ahead Left	U	N/A	N/A	D		1	32	-	237	2015:1738	338+432	30.8 : 30.8%
5/1		U	N/A	N/A	-		-	-	-	380	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	456	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	832	Inf	Inf	0.0%
6/3		U	N/A	N/A	-		-	-	-	684	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	809	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	906	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	852	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	254	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	26	-	0	-	0	0.0%

Full Input Data And Results

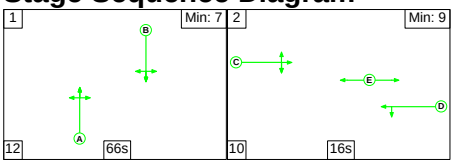
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**242**	**0**	**155**	**26.3**	**7.5**	**1.7**	**35.5**	**-**	**-**	**-**	**-**
Princess Road - Nell Lane	**-**	**-**	**242**	**0**	**155**	**26.3**	**7.5**	**1.7**	**35.5**	**-**	**-**	**-**	**-**
1/1	674	674	-	-	-	3.1	0.9	-	4.0	21.3	13.5	0.9	14.4
1/2	754	754	-	-	-	3.5	1.0	-	4.5	21.3	15.3	1.0	16.3
1/3+1/4	779	779	0	0	95	3.5	1.1	1.0	5.6	25.8	15.1	1.1	16.1
2/2+2/1	441	441	242	0	2	3.8	1.1	0.1	4.9	40.3	10.6	1.1	11.7
3/1	716	716	-	-	-	3.4	1.0	-	4.4	22.0	14.7	1.0	15.7
3/2	784	784	-	-	-	3.7	1.1	-	4.8	22.0	16.3	1.1	17.4
3/3+3/4	788	788	0	0	58	3.7	1.1	0.6	5.4	24.7	16.0	1.1	17.1
4/2+4/1	237	237	-	-	-	1.7	0.2	-	1.9	29.3	2.8	0.2	3.0
5/1	380	380	-	-	-	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
6/2	832	832	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/3	684	684	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	906	906	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	254	254	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 29.8 Total Delay for Signalled Lanes (pcuHr): 35.47 Cycle Time (s): 104
PRC Over All Lanes (%): 29.8 Total Delay Over All Lanes(pcuHr): 35.47

Full Input Data And Results

Scenario 5: 'AM Base + D1 + Meanwhile Use' (FG5: 'AM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

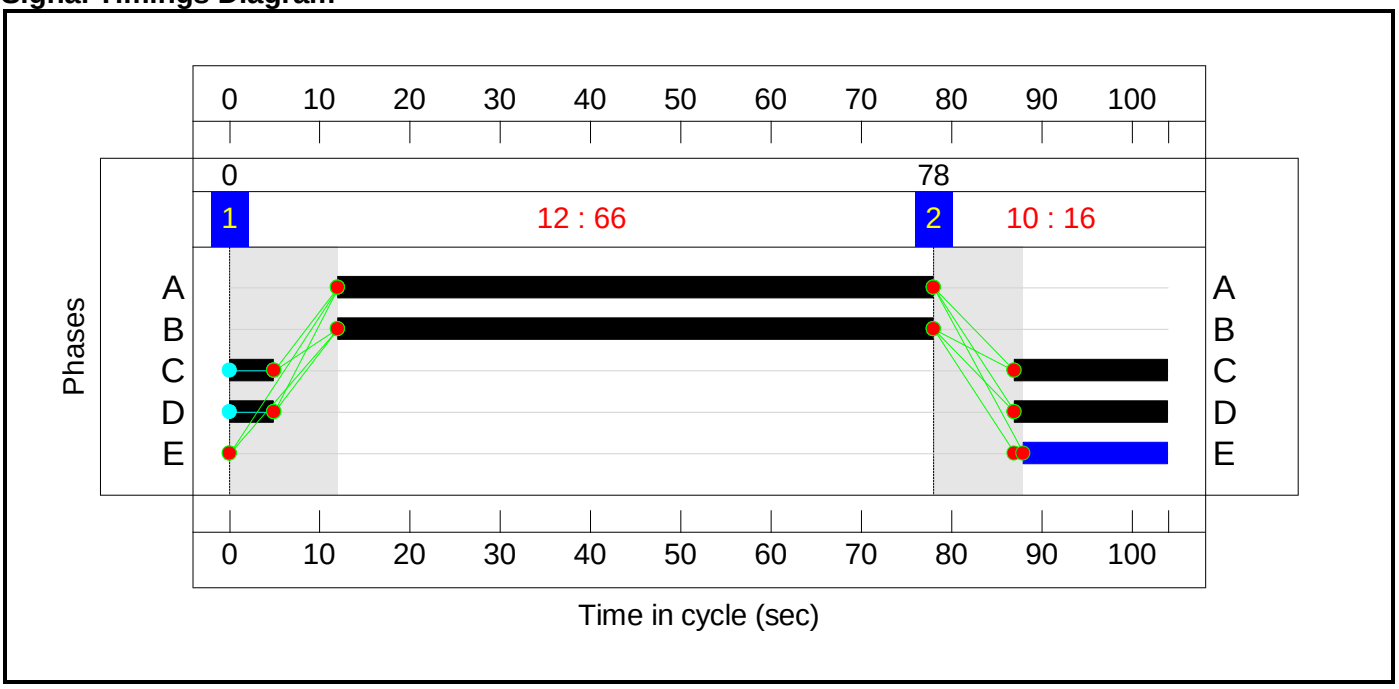
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	66	16
Change Point	0	78

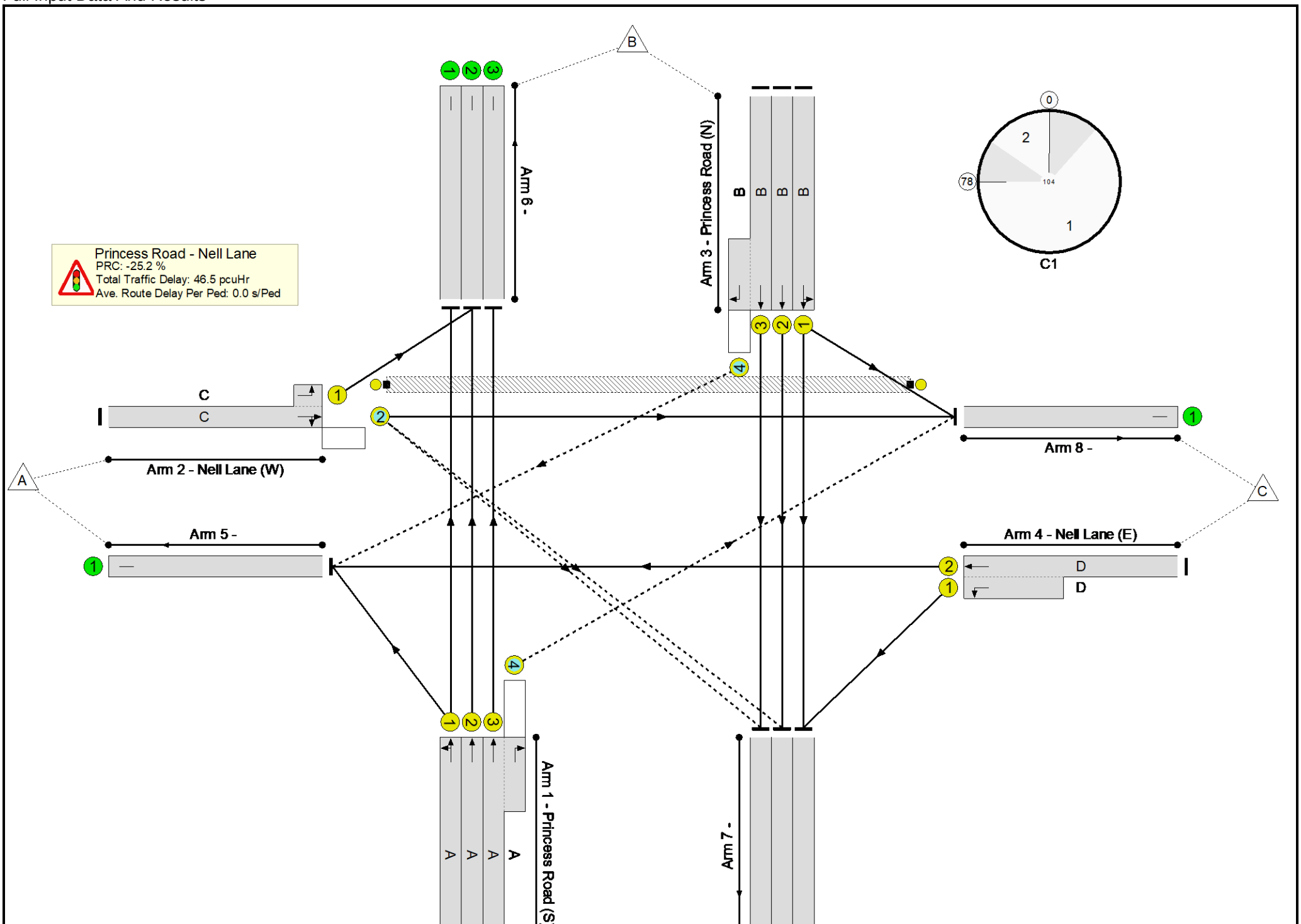
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**112.7%**
Princess Road - Nell Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**112.7%**
1/1	Princess Road (S) Left Ahead	U	N/A	N/A	A		1	66	-	1028	1923	1239	83.0%
1/2	Princess Road (S) Ahead	U	N/A	N/A	A		1	66	-	1124	2080	1340	83.9%
1/3+1/4	Princess Road (S) Ahead Right	U+O	N/A	N/A	A		1	66	-	157	2080:1805	1+138	112.7 : 112.7%
2/2+2/1	Nell Lane (W) Left Right Ahead	O+U	N/A	N/A	C		1	22	-	397	2046:1839	382+67	88.4 : 88.4%
3/1	Princess Road (N) Ahead Left	U	N/A	N/A	B		1	66	-	585	1927	1241	47.1%
3/2	Princess Road (N) Ahead	U	N/A	N/A	B		1	66	-	653	2085	1343	48.6%
3/3+3/4	Princess Road (N) Right Ahead	U+O	N/A	N/A	B		1	66	-	660	2085:1768	1181+104	49.4 : 73.2%
4/2+4/1	Nell Lane (E) Ahead Left	U	N/A	N/A	D		1	22	-	253	2015:1738	256+333	43.0 : 43.0%
5/1		U	N/A	N/A	-		-	-	-	333	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	881	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	1183	Inf	Inf	0.0%
6/3		U	N/A	N/A	-		-	-	-	1	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	656	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	767	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	698	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	16	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**226**	**0**	**217**	**20.9**	**22.2**	**3.3**	**46.5**	**-**	**-**	**-**	**-**
Princess Road - Nell Lane	**-**	**-**	**226**	**0**	**217**	**20.9**	**22.2**	**3.3**	**46.5**	**-**	**-**	**-**	**-**
1/1	1028	1028	-	-	-	4.0	2.4	-	6.4	22.5	22.6	2.4	24.9
1/2	1124	1124	-	-	-	4.5	2.5	-	7.0	22.5	25.0	2.5	27.5
1/3+1/4	157	139	0	0	138	0.7	12.1	2.2	15.0	344.6	2.3	12.1	14.4
2/2+2/1	397	397	226	0	2	4.3	3.4	0.2	7.9	71.4	10.7	3.4	14.1
3/1	585	585	-	-	-	1.5	0.4	-	2.0	12.2	8.6	0.4	9.1
3/2	653	653	-	-	-	1.7	0.5	-	2.2	12.2	9.6	0.5	10.1
3/3+3/4	660	660	0	0	76	1.7	0.5	0.9	3.2	17.3	9.1	0.5	9.6
4/2+4/1	253	253	-	-	-	2.4	0.4	-	2.8	39.3	3.5	0.4	3.9
5/1	333	333	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	881	881	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	1183	1183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/3	1	1	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	656	656	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	767	767	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	698	698	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	320	320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-

C1

PRC for Signalled Lanes (%): -25.2
PRC Over All Lanes (%): -25.2

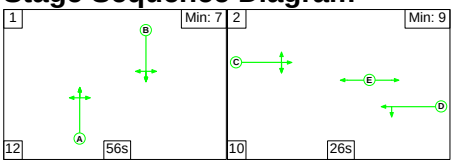
Total Delay for Signalled Lanes (pcuHr): 46.45
Total Delay Over All Lanes(pcuHr): 46.45

Cycle Time (s): 104

Full Input Data And Results

Scenario 6: 'PM Base + D1 + Meanwhile Use' (FG6: 'PM Base + D1 + Meanwhile Use', Plan 1: 'Network Control Plan 1')

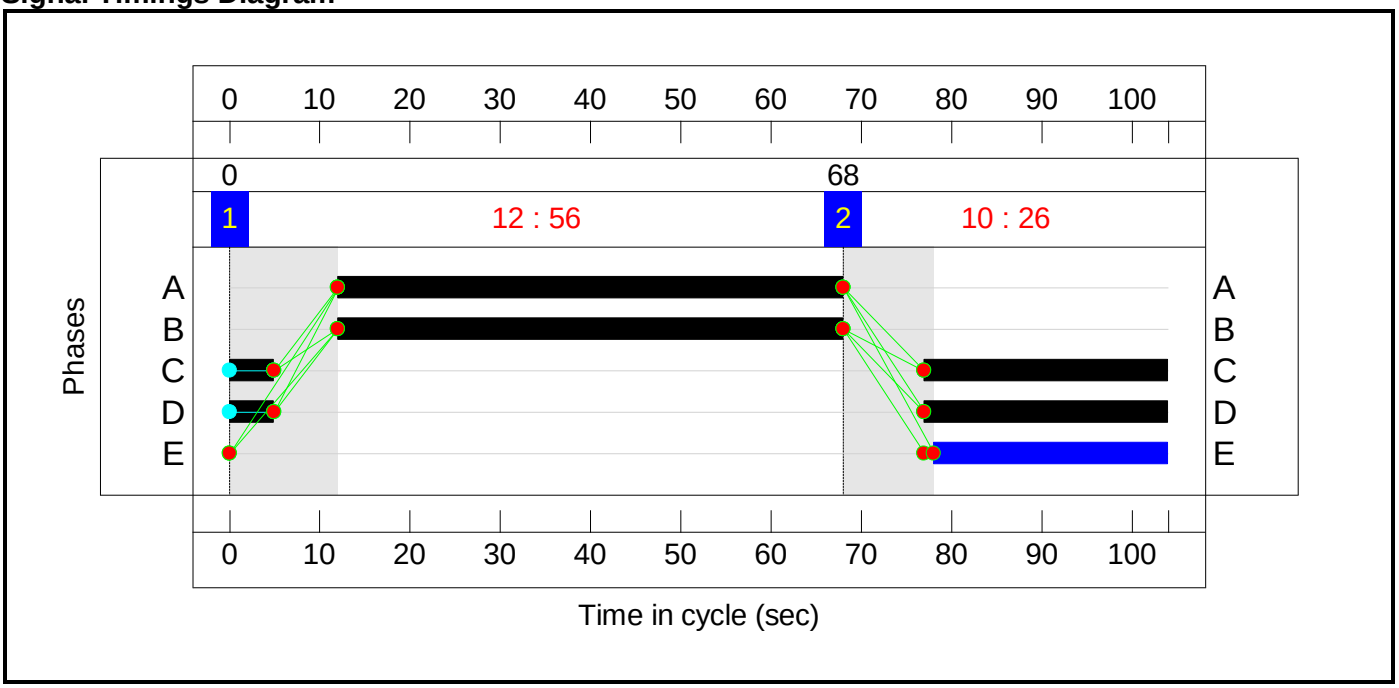
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	56	26
Change Point	0	68

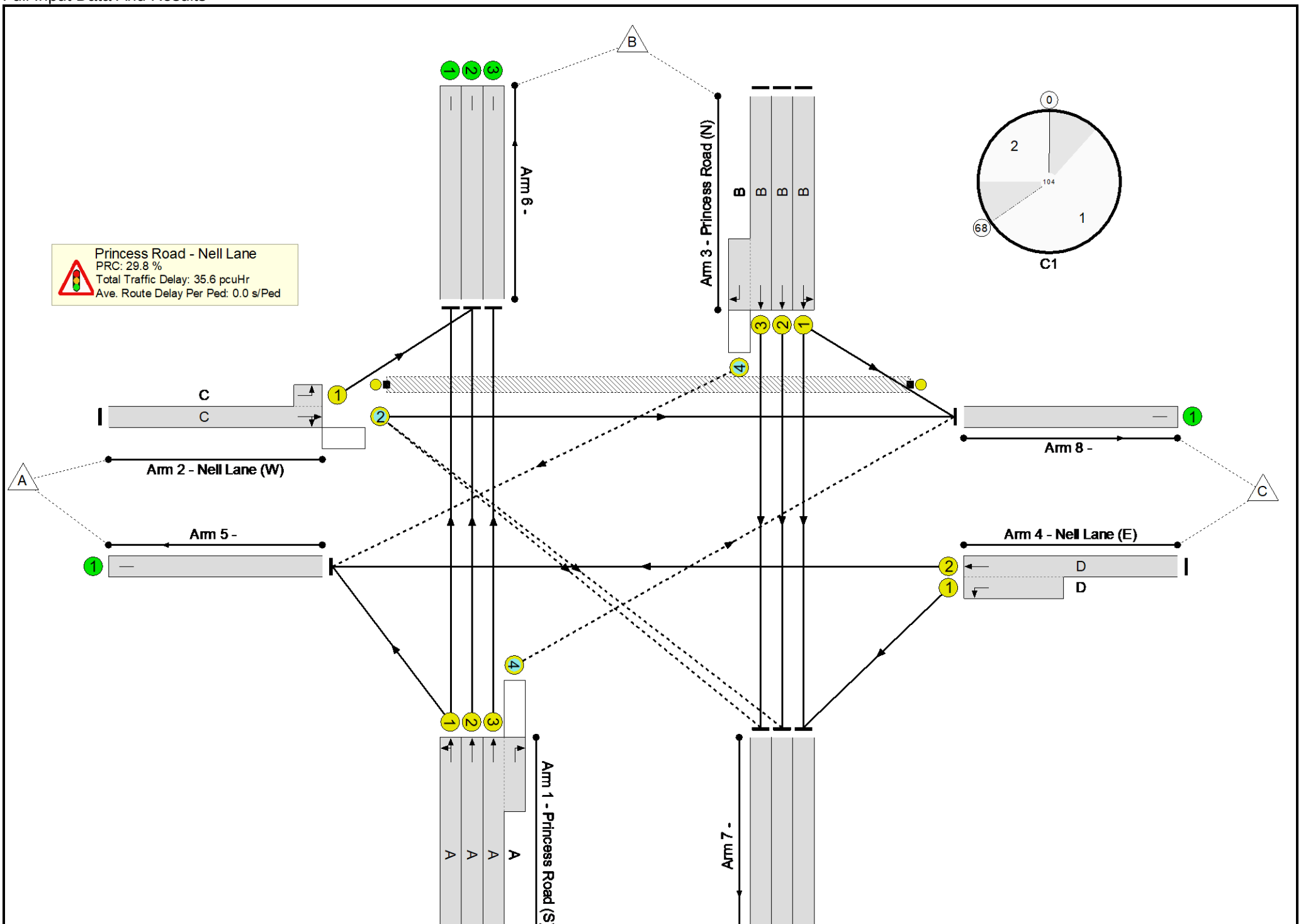
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.3%**
Princess Road - Nell Lane	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.3%**
1/1	Princess Road (S) Left Ahead	U	N/A	N/A	A		1	56	-	677	1903	1043	64.9%
1/2	Princess Road (S) Ahead	U	N/A	N/A	A		1	56	-	757	2080	1140	66.4%
1/3+1/4	Princess Road (S) Ahead Right	U+O	N/A	N/A	A		1	56	-	782	2080:1805	1005+138	68.4 : 68.6%
2/2+2/1	Nell Lane (W) Left Right Ahead	O+U	N/A	N/A	C		1	32	-	441	2046:1839	530+114	68.5 : 68.5%
3/1	Princess Road (N) Ahead Left	U	N/A	N/A	B		1	56	-	718	1937	1062	67.6%
3/2	Princess Road (N) Ahead	U	N/A	N/A	B		1	56	-	783	2085	1143	68.5%
3/3+3/4	Princess Road (N) Right Ahead	U+O	N/A	N/A	B		1	56	-	788	2085:1768	1053+84	69.3 : 69.3%
4/2+4/1	Nell Lane (E) Ahead Left	U	N/A	N/A	D		1	32	-	237	2015:1738	338+432	30.8 : 30.8%
5/1		U	N/A	N/A	-		-	-	-	384	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	455	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	835	Inf	Inf	0.0%
6/3		U	N/A	N/A	-		-	-	-	687	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	811	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	905	Inf	Inf	0.0%
7/3		U	N/A	N/A	-		-	-	-	852	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	254	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	26	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**242**	**0**	**155**	**26.4**	**7.5**	**1.7**	**35.6**	**-**	**-**	**-**	**-**
Princess Road - Nell Lane	**-**	**-**	**242**	**0**	**155**	**26.4**	**7.5**	**1.7**	**35.6**	**-**	**-**	**-**	**-**
1/1	677	677	-	-	-	3.1	0.9	-	4.0	21.4	13.5	0.9	14.5
1/2	757	757	-	-	-	3.5	1.0	-	4.5	21.4	15.4	1.0	16.3
1/3+1/4	782	782	0	0	95	3.6	1.1	1.0	5.6	25.8	15.4	1.1	16.4
2/2+2/1	441	441	242	0	2	3.8	1.1	0.1	4.9	40.3	10.6	1.1	11.7
3/1	718	718	-	-	-	3.4	1.0	-	4.4	22.1	14.8	1.0	15.8
3/2	783	783	-	-	-	3.7	1.1	-	4.8	22.0	16.3	1.1	17.4
3/3+3/4	788	788	0	0	58	3.7	1.1	0.6	5.4	24.7	16.0	1.1	17.1
4/2+4/1	237	237	-	-	-	1.7	0.2	-	1.9	29.3	2.8	0.2	3.0
5/1	384	384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	455	455	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	835	835	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/3	687	687	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	811	811	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	905	905	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	254	254	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 29.8 Total Delay for Signalled Lanes (pcuHr): 35.58 Cycle Time (s): 104
PRC Over All Lanes (%): 29.8 Total Delay Over All Lanes(pcuHr): 35.58

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