There is no Science Bridge or link road through the power station site at the moment, but the proposed scheme is located in what is currently privately owned fields to the south and to the east, and the existing decommissioned Didcot A Power Station, which is earmarked for redevelopment and requires access to enable this development.

The scheme objectives include improving conditions for walking and cycling as the current A4130 alignment has limited facilities and connections for these users. This is likely to include segregated facilities alongside the proposed carriageway and associated pedestrian and cycling infrastructure such as improving crossings and adjacent routes wherever possible.

1.2 Proposed highway scheme

The proposed Science Bridge will facilitate the redevelopment of the decommissioned Didcot A Power Station site as a key part of the proposed development to the Science Vale area. The brown field site is intended for redevelopment into mainly B1 (Business) and/or B8 (Storage and Distribution) use. Traffic flow within the area is therefore expected to grow significantly by 2030.

A new road over rail bridge is proposed to provide access to the former power station site and provide part of a strategic link between the Didcot Northern Perimeter Road, the A4130 and the A34 at Milton Interchange. The bridge is also intended to alleviate pressure on existing transport infrastructure in the Didcot area, predominantly the existing A4130 / B4493 roundabout, A4130 / Basil Hill Rd roundabout and A4130 / Hawksworth roundabout.

The proposal (the current design layout is provided in **Appendix A**) includes a single carriageway link road between the proposed widened A4130 west of the Great Western Park development and the Didcot Northern Relief Road, providing access to the Didcot A Power Station site, and supporting employment and housing development within the power station site and the wider Science Vale area. The scheme objectives include improving conditions for walking, cycling and horse-riding.

The proposed Science Bridge link road will not have a consistent cross section along the whole scheme. Although there are three different sections, all of them will have in common a 7.3m wide carriageway (although the design plans show a narrower width):

Section 1: eastern end of A4130 Widening scheme to the northern end of the proposed bridge embankment:

- 1.5m wide unidirectional cycleway (western side)
- 2.0m wide footway (eastern side)
- 3.0m wide bidirectional cycleway (eastern side)

Section 2: northern end of the proposed bridge embankment for approximately 500m:

- 2.0m wide footway (both sides)
- 3.0m wide bidirectional cycleway (both sides)

Section 3: end of section 2 to the eastern end of the scheme:

- 2.0m wide footway (both sides)
- 3.0m wide bidirectional cycleway (northern side)

1.3 WCHAR study area

GG 142 establishes that the Lead Assessor shall define a WCHAR study area on a scheme-by-scheme basis, that should typically extend 1km surrounding a small highway scheme and 5km surrounding a large highway scheme. This scheme does not form part of the trunk road network, and after careful review of the requirements and proposed works, a reduced local study area extent (approximately 1km radius) has been proposed that is deemed appropriate for this study. **Figure 2** shows the proposed study area, where the blue dashed line shows the scheme and the green one shows the study area extents.

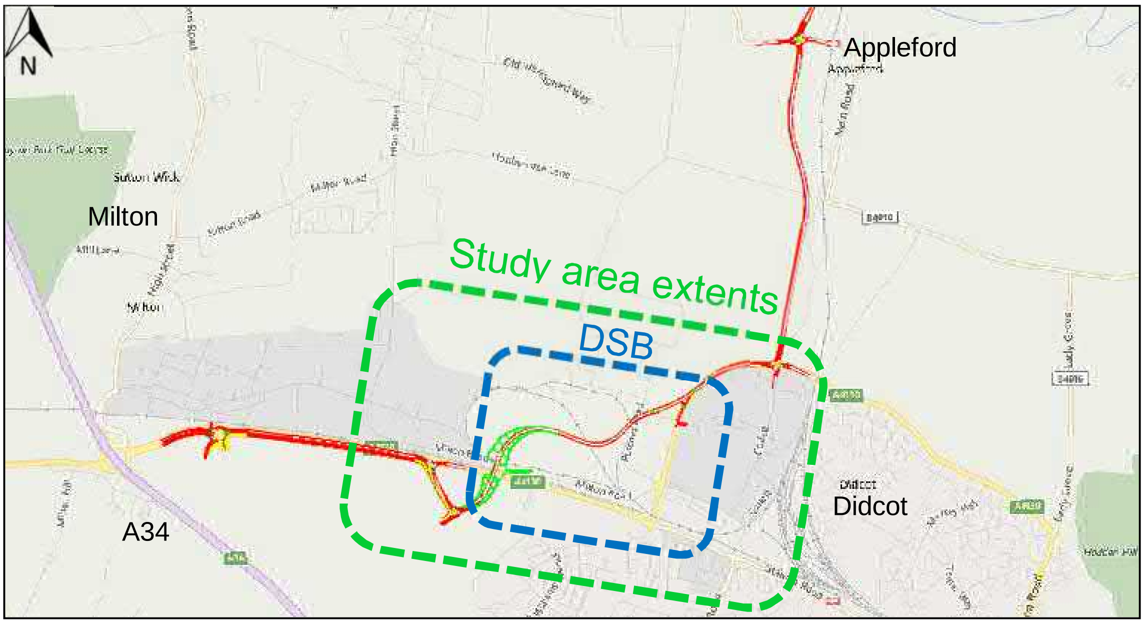


Figure 2: DSB WCHAR study area location plan[2]

[2] *"Google Map™ and Google Streetview™ have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google Inc."*

2. WCHAR assessment

2.1 Assessment of walking, cycling and horse-riding policies and strategies

The following regional and local policy documents have been reviewed as part of the assessment:

Oxfordshire County Council's Local Transport Plan 4, 2015 – 2031

LTP4 recognises that new road links and capacity improvements are necessary to accommodate the large scale of employment and residential development in Didcot.

Connecting Oxfordshire: Volume 4 Local Transport Plan 2015-2031 (Adopted 2016) - Active & Healthy Travel Strategy

The strategy states that the number of people who usually drive short journeys to work in Oxfordshire is increasing and therefore roads are becoming more congested. Oxfordshire County Council have a vision to make cycling a safe, simple and accessible option for people of all ages, and in turn make cycling a major mode of travel and reduce air pollution in Oxfordshire. This will include an increase in multimodal door-to-door trips by integrating the cycling and public transport networks to allow bike-rail and bike-bus journeys.

As part of the Strategy, a Cycle Premium Route between Didcot to Culham Science Centre, via the existing National Cycle Route 5 between Didcot and Long Wittenham and then on-road towards Culham Science Centre via Clifton Hampden Bridge, has been identified as part of the proposed Science Vale Cycle Network as shown in Figure 3. This cycle network has been identified to be a focus for future investment to cycling in the area. Given the importance of the route between the two key attractors in the region, and the existing site constraints at the Clifton Hampden Bridge, the proposed Didcot to Culham River Crossing will provide an opportunity for a high-quality cycle route as an alternative to the existing.

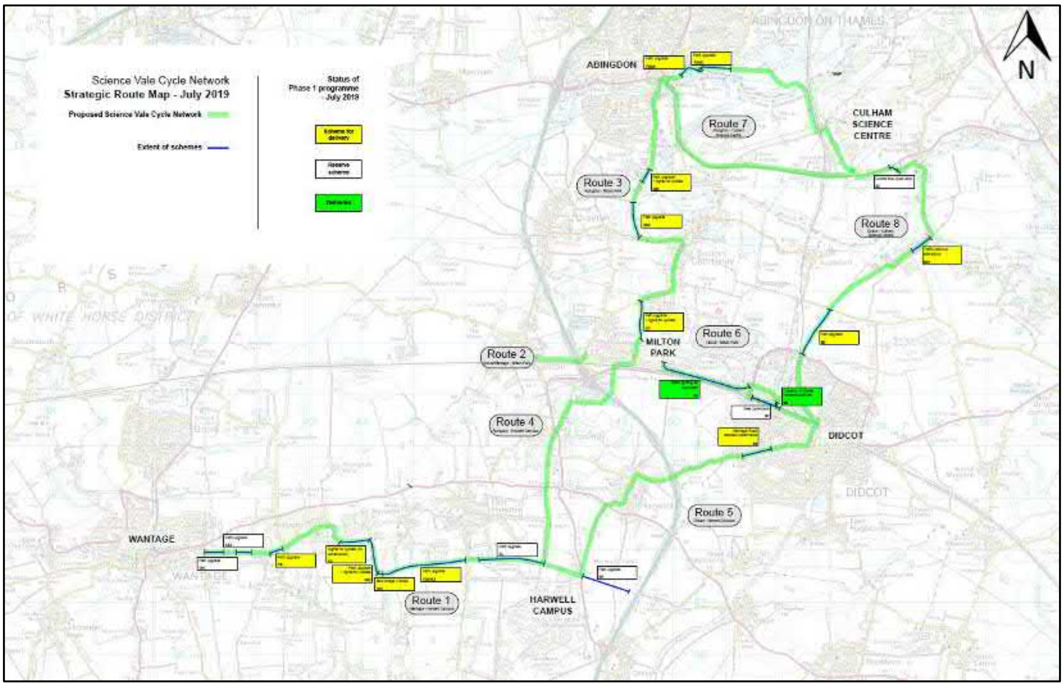


Figure 3: Proposed Science Vale Cycle Network route map[3]

3 https://www.oxfordshire.gov.uk/sites/default/files/file/roads-and-transport-major-projects/science_vale_cycle_network.pdf

Oxfordshire Rights of Way Management Plan 2015-2025

This document is an extension of the Oxfordshire Local Transport Plan and supports the achievement of the proposed goals. The main relevant objectives are the improvement of public health and wellbeing by increasing levels of walking and cycling, reducing the proportion of journeys made by private car. This is be achieved by making the use of public transport, walking and cycling more attractive, and maximising the use of existing and planned sustainable transport investment, through linking and integrating this with planned development to allow continued and increased use of the right of way network.

Vale of White Horse District Council - Local Plan 2031 (February 2018)

The main goal is to ensure that employment growth centred on the Enterprise Zone and Science Vale sits alongside strategic housing and infrastructure to support sustainable growth. Didcot has been identified as a location for strategic growth with proposals for improvements to the town centre and railway station.

Didcot Garden Town Delivery Plan (October 2017)

This plan recognises that Didcot will grow from approximately 26,000 people to over 60,000 by 2031. With this growth, Didcot is expected to become the largest town in Southern Oxfordshire, so even if the resident's movements around the town remain unchanged, town-wide journeys by car will double. This means that infrastructure investment is required, in terms of highways, pedestrian and cycle routes.

The east-west movement corridors like A4130 and the Science Bridge have been identified as one of the key proposals to achieving sustainable movement across the area.

Connecting Oxfordshire: Volume 4 Local Transport Plan 2015-2031 (Adopted 2016) - Active & Healthy Travel Strategy

Due to the increase of people who usually drive short journeys to work, OCC is attempting to make cycling a major mode of travel and reduce air pollution in the County. As part of the strategy, proposed cycle network like the connection between Didcot and Long Wittenham (Route 8), that provides a connection to Clifton Hampden, has been improved and created.

South Oxfordshire Local Plan 2034 - Infrastructure Delivery Plan (January 2019 update)

In 2015 the Government announced that Didcot would become a Garden Town delivering 15,050 homes and 20,000 high-tech jobs in the greater Didcot area. The Local Plan includes a policy to support the Garden Town, ensuring that proposals for development within the Didcot Garden Town Delivery Plan (October 2017) and its masterplan area will demonstrate a positive contribution to the achievement of the Didcot Garden Town Principles.

The plan has a summary of the infrastructure requirements for sites in Didcot, such as the capacity enhancements to the A4130, the new Science Bridge, the Didcot Station Car Park Expansion, and the Science Vale Cycle Network Improvements (see **Figure 3**), which includes improvements to connectivity between Science Vale and Didcot station by bike.

Design Standards

The following design standards have been reviewed as part of the assessment:

- Oxfordshire Walking Design Standards (A guide for Developers, Planners and engineers, summer 2017).
- Oxfordshire Cycling Design Standards (A guide for Developers, Planners and engineers, summer 2017).
- CD 195 Designing for cycle traffic.
- CD 143 Designing for walking, cycling and horse-riding.
- Advice on road crossings for horses (The British Horse Society).

2.2 Collision Data

Collision data from Stats 19 has been obtained and analysed to identify collision cluster sites and trends. Analysis of collision data allows the identification of existing problems which may discourage the use of a particular site.

Collision data has been obtained from Oxfordshire County Council for a five-year period between 9th June 2014 and 8th June 2019. There was a total of 36 collisions recorded within the scheme extents, resulting in 42 casualties. The severity is summarised by year for collisions in **Table 1** and casualties in **Table 2**. The data does not show any clear evidence of deterioration or improvement in road safety in the study area.

To avoid overlapping with the collision data recorded in the Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) for the Didcot to Culham River Crossing scheme, only the data to the west of the A4130/Collett junction has been analysed.

Severity/ Year	2014 (part)	2015	2016	2017	2018	2019 (part)	Total
Fatal	0	0	0	0	0	0	**0**
Serious	1	2	2	4	1	0	**10**
Slight	7	2	5	7	3	2	**26**
Total	8	4	7	11	4	2	**36**

Table 1: Total collisions by severity

Severity/ Year	2014(part)	2015	2016	2017	2018	2019(part)	Total
Fatal	0	0	0	0	0	0	**0**
Serious	1	2	2	5	1	0	**11**
Slight	9	2	6	8	4	2	**31**
Total	10	4	8	13	5	2	**42**

Table 2: Total casualties by severity

Of the total 36 collisions and 42 casualties, one involved a pedestrian and 21 involved a cyclist. No collisions involving an equestrian were recorded in the scheme extents. There were no fatal injury severity collisions within the scheme extents.

A summary of the collisions involving pedestrians and cyclists is shown in the table below:

Location	Collision severity	Collision type	Non-motorised users involved?	Contributory factors
A4130 Didcot Northern Perimeter Road junction with Trident house entrance	1 serious	1 shunt	No	External distraction, failure to look, junction restart, poor manoeuvre and distraction outside
A4130 at roundabout Mendip heights / B4493	2 serious, 1 slight	1 failure to give way	Yes (Cyclist)	Failed to look
		1 shunt	No	Distraction in vehicle, following too close, sudden braking, mobile phone used, defective eyesight and failed to look

Location	Collision severity	Collision type	Non-motorised users involved?	Contributory factors
		1 shunt	No	Failed to look/judge speed, swerved
Roundabout A4130 / Basil Hill Road / Milton Road / Power Station access	3 serious, 5 slights	3 failure to give way	Yes (Cyclist)	Failed to look and vehicle blind spot - Failed to look/judge speed, poor manoeuvre, dazzling sun and blind spot
		3 failure to give way	Yes (Cyclist)	Failed to look, careless - Failed to look, junction restart, wet conditions - Failed to look and careless
		1 Unclear circumstance. Cyclist was using cycle crossing point	Yes (Cyclist)	Failed to look/judge speed
		1 failure to give way	No	Vehicle blind spot, failed to look/judge speed
Basil Hill Road approximately 100m northwest of rail bridge	1 slight	1 Cyclist enters the road from footway	Yes (Cyclist)	Cyclist entering road from pavement and failed to look
A4130 at Power Station	1 serious	1 failure to give way	Yes (Cyclist)	Careless
Roundabout A4130 Didcot Northern Perimeter Road / Hawksworth	1 serious, 5 slights	1 failure to see the cyclist	Yes (Cyclist)	Wet conditions, failed to look, distraction outside and careless
		2 failure to give way	No	Wet conditions, failed to look/judge speed - Impaired by alcohol
		1 cyclist was hit while entering a roundabout	Yes (Cyclist)	Failed to look/judge speed
		1 failure to give way	Yes (Cyclist)	Failed to look
		1 shunt	No	Illness. Driver coughs
A4130 approximately 500m west of junction with Sir Frank Williams Way Harwell	2 serious, 2 slights	1 Hitting a motorcycle while turning in a traffic queue	No	Failed to look, poor manoeuvre and careless
		1 shunt	No	Fatigue, failed to look and poor manoeuvre
		2 shunts	No	Junction restart, failed to look, travelling too fast and following too close - Distraction in vehicle, loss of control and swerved
The Oval by house number 30	1 slight	4 year old pedestrian ran in front of the vehicle	Yes (Pedestrian)	Dangerous action in carriageway, crossed road masked by stationary or parked vehicle and failed to look
Roundabout B4493 Station Road / Foxhall Road	6 slights	2 cyclists were hit while entering a roundabout	Yes (Cyclist)	Failed to look/judge speed, junction overshoot, exceeding speed limit, disobeyed give way/stop signs and careless
		2 failure to give way	Yes (Cyclist)	The vehicle disobeyed give way/stop sign markings - Failed to look
		1 island hit	No	Impaired by alcohol, poor manoeuvre, travelling too fast and exceeding speed limit
		1 shunt	No	Aggressive driving, careless and failed to judge speed

Table 3: Collision register

The collision involving a pedestrian occurred at the Oval by House number 30, which is within the study area, but outside the scheme extents. This involved a 4-year-old child in a group of playing children, who ran across the carriageway and was hit by a car and sustained slight injury.

The conclusions of the collision analysis involving cyclists are as following:

- Of the 21 collisions, 11 (52.4%) happened at/near to the Basil Hill Road/Milton Road roundabout.
- The main contributory factors were “Failed to look properly”, “Failed to judge other person's path/speed” and “Careless/Reckless”.
- According to the report, 95% of the collisions involving cyclists had contributory factors relating to the fault of the vehicle driver.
- Regarding the use of cycle helmets, 43% of the cyclists involved in the collisions wore one, 14% did not, and the rest were not recorded.

Appendix B contains details and balloon diagrams for all the collisions.

2.3 Multi-modal transport services and interchange information

Pedestrians, cyclists and equestrians may combine their modes of travel with public transport as part of a longer trip. As part of this Assessment, public transport services and associated infrastructure such as rail and bus stations (including bus stops) and interchanges have been identified to enable an appropriate assessment of the integration of such modes.

2.3.1 Bus Service

There are no existing bus stops within the scheme extents, or nearby. Bus services do pass through or close to the study area; these have been split between the services around Didcot (**Figure 4**) and those services with connections outside of the Didcot area (**Figure 5**).

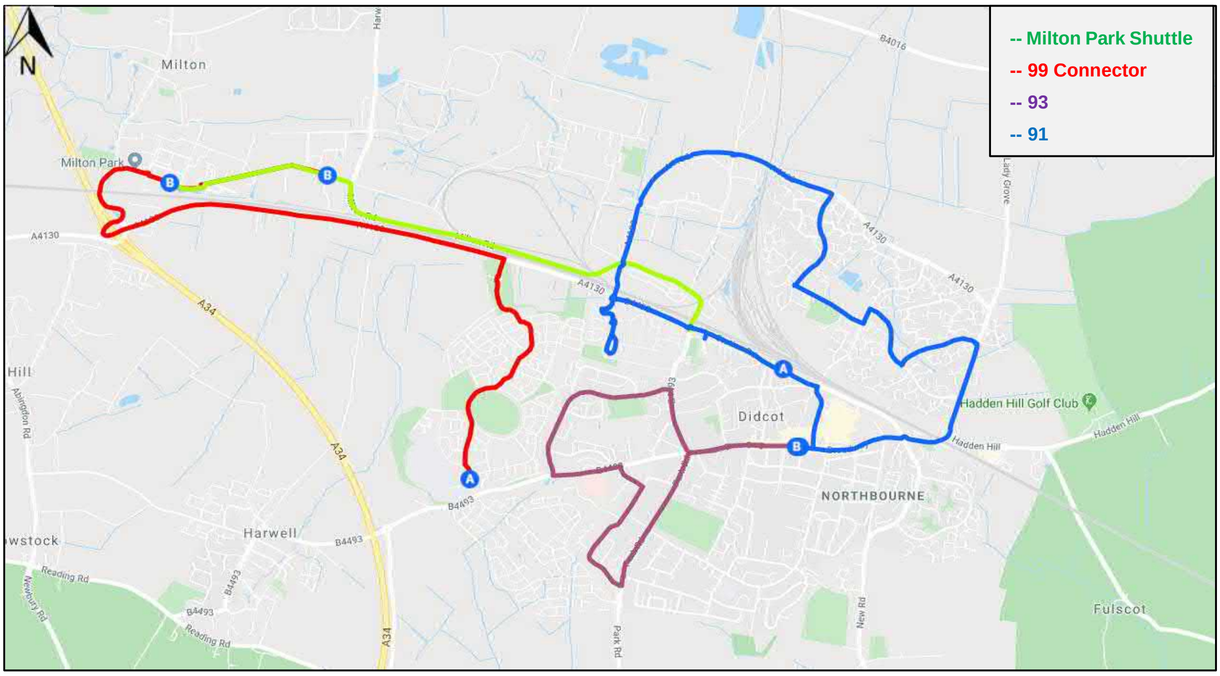


Figure 4: Bus routes around Didcot

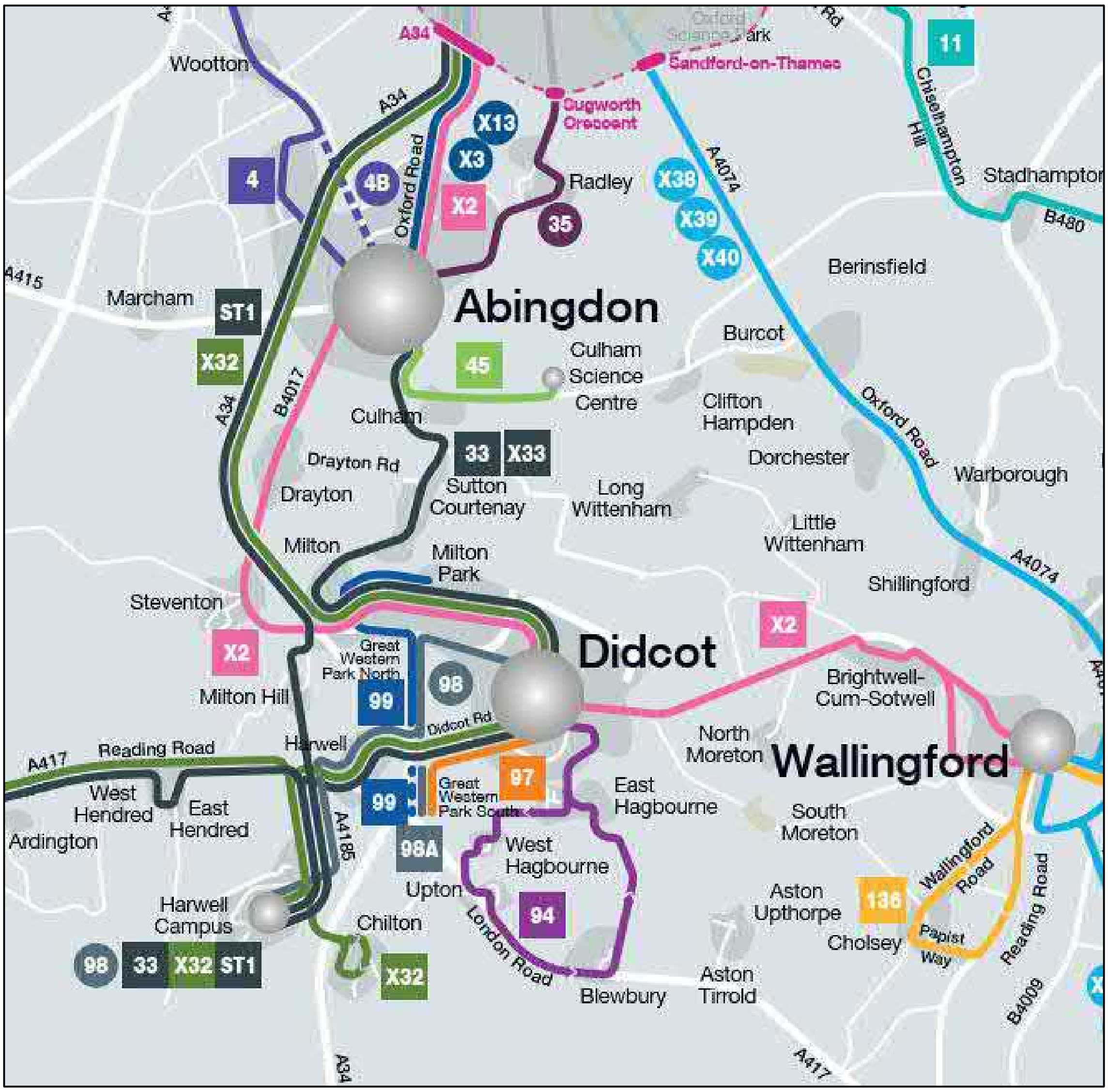


Figure 5: Extract of South Oxfordshire Zone network map

2.3.2 Train Services

While there are no train stations along the Science Bridge scheme, there are two train stations[4] nearby the study area:

Didcot Parkway station is located less than 2km east of the scheme along the B4493 – Station Road. Train services at this station are operated by Great Western Rail, running trains into Oxford, London Paddington, Reading, Cardiff Central, Banbury, Weston Super Mare, Cheltenham Spa, Swansea, Taunton, Bristol Temple Meads and Carmarthen. This station has an average of ten services per hour.

The train station has a ticket office and ticket machine. It also has facilities such as toilets, car parks (1,127 spaces), sheltered cycle storage, bus services, taxi rank and a bike hire station. All station areas have step free access suitable for wheelchairs and ramps for train access.

Appleford railway station is located north in Appleford village and is less than 3km north of the scheme. Train services at this station are operated by Great Western Rail, running trains into Didcot Parkway, Oxford, London Paddington, Reading, Banbury and Moreton in Marsh.

[4] https://www.gwr.com/

The train station is unattended and does not offer toilets, car park, cycle storage or taxi rank, and all station areas are unsuitable for wheelchair access. This station has an average of one service per hour.

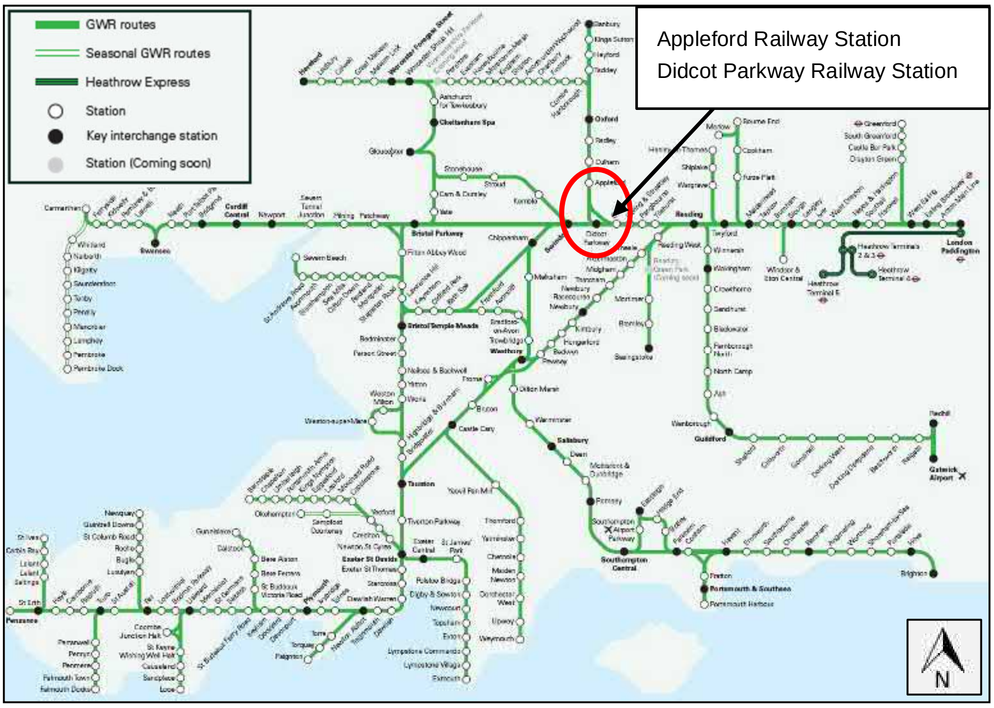


Figure 6: Great Western Railway Network

2.4 Key trip generators and local amenities

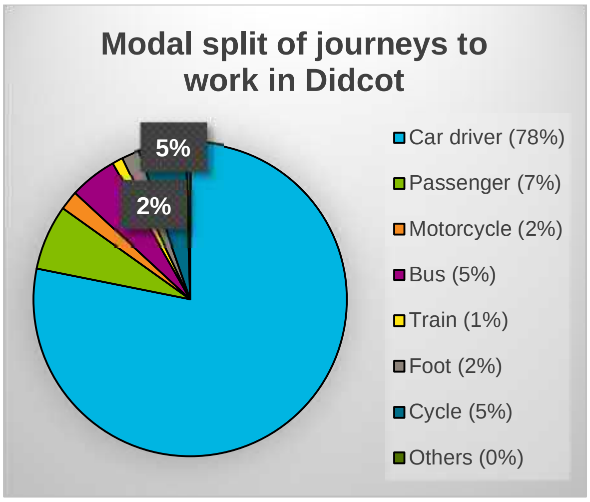
2.4.1 Current trip generators

Didcot has a population of 25,140[5], as of the 2011 census, has grown by 1,687 residents (7%) since 2001. Didcot is the largest settlement in South Oxfordshire (19%). Didcot has a higher proportion of flats, terraced housing and semi-detached houses than average for the district and households are less likely to be owner occupied.

Almost half of the journeys to work which end in Didcot also start in the town. There is almost double the number of journeys out of Didcot to work as journeys into the town. Trips to the rest of the Science Vale area make up the largest number (about 20%), and this includes trips to Milton Park, Harwell and Culham Science Parks. The next largest destination is Oxford with other significant destinations being Abingdon, Wallingford and Reading.

The number of vehicle movements into and out of Didcot town increased from 12,544 in 2001 to 13,826 in 2011[6] however cars per household remains below the district average. The overwhelming mode of travel to work in Didcot is as a car driver. Around 80% of journeys to work in Didcot are made by car, either as driver or passenger. There has been an increase in the number of employees driving to work, going by bus and travelling to work on foot.

[5] http://www.oxford.gov.uk/districtdata/downloads/file/61/south_oxon_census_2011_summary_leaflet
[6] http://www.oxford.gov.uk/districtdata/downloads/file/68/didcot_settlement_profile_census_2011



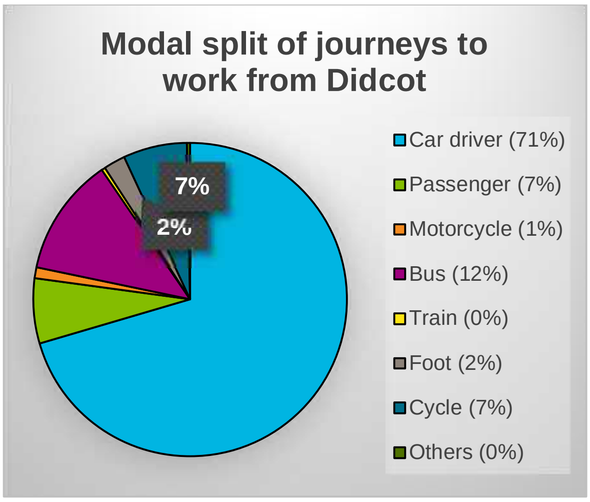


Figure 7: Modal split of journeys to work in and from Didcot

Bus journeys and cycle trips each account for approximately 5% of all journeys to work in Didcot, while the train is used in only 1% of commuter trips and only 2% by foot. Bus trips to work are only significant for trips to elsewhere in Science Vale (which includes Milton Park).

The key trip generators near the proposed scheme that could attract pedestrian and cyclist trips are the following:

Local businesses and key places of interest

Milton Park is a major employer of local staff and from a wider area, increasingly so as it has become a centre for more specialised, higher end activities, and also impacts the balance of in-commuters to out-commuters.

A service area near the Milton Interchange, has businesses such as car dealerships, restaurants, a coffee shop, a fuel station, and hotels.

Didcot Power Station, Southmead Industrial Estate, including Tesco Distribution Centre and the Trident Business Park are also local trip generators. While many Didcot residents use the Didcot Parkway train station to reach destinations further afield.

Residential areas

There are no residential areas that are within the immediate scheme extents. However, there are many within a short distance from the scheme:

Didcot

The town offers a broad range of housing and employment opportunities, as well as key services and facilities including retail, health care, leisure and culture. The Great Western Park development, immediately east of the scheme extents has recently delivered many new homes.

Appleford

This is a small village located north of the scheme. There are no facilities like stores in the village but there is a train station.

There are some other villages outside of the scheme extents such as Sutton Courtenay, Steventon, Milton Hill, Harwell, North Moreton or South Moreton that are close to Didcot. Residents in these areas probably travel frequently to Didcot due to the facilities available, including shopping, restaurants, hospital, banks and fuel stations.

Oxford

The A34 links Didcot with Oxford, which is 14 miles to the north. Oxford has several important functions: a centre of higher education (with two universities), a major shopping centre; a centre for public services and a centre of manufacturing. Oxford is one of the largest employment centres in the South East, in addition to a large student population. Oxford also has a high level of in-commuting for employment, public services, education, health services and over 5 million visitors a year.

2.4.2 Future trip generators

Housing areas are planned for the Valley Park area in south-west Didcot (immediately south of the A4130 Widening scheme), Ladygrove North in north-east Didcot, North-east Wantage, and at other locations including Culham, Berinsfield and Dalton Barracks. Together these will add more than 22,000 houses to the local area.

Major employment development is planned within two Enterprise Zones, Science Vale and Didcot Growth Accelerator, and elsewhere at Milton Park and Didcot Power Station, Grove Airfield, Culham Science Centre and Harwell IBC. If these developments were allowed to progress without any improvements in the capacity of the transport networks, then the result would likely be unacceptable local congestion.

The Oxford Strategic Model (OSM) has been developed to predict traffic growth based on travel conditions in 2013. The model consists of an Highway Assignment Model (HAM) representing vehicle-based movements within and across the Oxfordshire County, the Public Transport Assignment Model (PTAM) representing bus and rail-based movements across the same area and for the same periods and a five-stage multi-modal Demand Model (MMDM) that estimates the choice of frequency, mode, period, destination and sub-mode in response to changes in generalised costs of travel.

These model assignments suggest that in the period 2013-2031 there would be around 25% traffic growth in the Didcot area in the morning and evening peaks, while in the inter-peak periods traffic growth could be 45%. The flow on the A4130 to the A34 is predicted to increase by 30-40% in the peaks and over 50% in the inter-peak periods.

The proposed planning applications that are pertinent to the proposed developments in the study area and extents according to the OCC[7] are the following:

South of Great Western Park, Didcot (P17/S3029/SCO)

Scoping opinion for proposed outline application for the development of land to the south of Great Western Park, for approximately 1,023 dwellings.

Land to the north east of Didcot (P15/S2902/O)

Proposed new and integrated neighbourhood to the northeast of Didcot of up to 1,880 homes, two new primary schools, a new secondary school and a new leisure/ sports facility and sports pitches, including a pavilion. A new neighbourhood centre, a mixed-use Public House/restaurant, a hotel, a new community hall, a residential Extra Care Housing facility, new areas of green infrastructure including amenity green space, allotments and children's play areas, a supporting town-wide and site-specific associated infrastructure.

Car Park, Station Road, Didcot OX11 7NN (P15/S2159/O)

Planning application for demolition of existing buildings and a mixed-use development comprised of up to 300 residential units, a 70-bed hotel, gym, retail uses, commercial office floorspace, a replacement nursery school and a decked car park of up to three levels and supporting infrastructure. Closure of Lydalls Road to allow for redevelopment and altered pedestrian access.

[7] https://www.oxfordshire.gov.uk/residents/environment-and-planning/planning/find-planning-application/major-planning-applications/south-oxfordshire

Land at former Didcot A Power Station, Purchas Road, Didcot (P15/S1880/O)

Mixed-use redevelopment comprising up to 400 dwellings, hotel and pub/restaurant, including link road, related open space, landscaping and drainage infrastructure, together with reservation of land for link road and Science Bridge.

Orchard Shopping Centre, Didcot OX11 7LL (P15/S0433/FUL)

Demolition of existing buildings and construction of 1 and 2 storey buildings comprising retail units, flexible retail units, restaurants and a gym. Replacement public toilets, new public realm, improvements to existing public realm, new landscaping, realignment of drainage channel and alterations to access comprising amendments to the existing parking layout, additional car, motorcycle and cycle parking, new servicing area, new and amended access from the highway (including relocated bus route and closure of the High Street to allow redevelopment for retail use) and altered/ new pedestrian access.

2.5 Site visit

The site visit was undertaken by Andy Blanchard (Project Manager & Lead Assessor), Mike Ager (Design Team Leader), Andrea Blanco (Senior Engineer) and Rebeca Bolado (Graduate Engineer), on 9th December 2019 during daylight hours. The site visit took the form of walking around the current Didcot A Power Station and the A4130 future links within the scheme extents. The weather during the site visit was windy and sunny, with temperatures of 7 degrees Celsius.

The primary findings of the site visit were:

- The unsignalised crossing point over the northern arm of the A4130 / Hawksworth roundabout (the NCN5 alignment) has poor visibility and the crossing waiting time is very long due to high traffic volumes.
- Both pedestrians and cyclists were observed using the bridleway north of the Hawksworth roundabout. One dog walker was seen during the site visit.
- No equestrians were seen during the site visit.
- The eastern footway of the A4130 Northern Perimeter Road (north of the Hawksworth roundabout) has a steep crossfall that makes it uncomfortable to use as a pedestrian or cyclist. The general condition of this footway is poor, although it appears to have been recently “trimmed and sided”.

Figure 8: A4130 Northern Perimeter Road

2.6 Existing pedestrian, cyclist and equestrian facilities

2.6.1 Local facilities

The alignment of the proposed scheme mostly traverses land that is currently private and industrial in use. However, the existing facilities for non-motorised users along the adjacent highway corridor include the following:

- The majority of the east-west & north-south A4130 between Great Western Park and Collett roundabout has street lighting and a footway on at least one side of the road (although there is no footway between the Mendip Heights and Basil Hill roundabouts).
- The southern footway along the east-west section of the A4130 (between Great Western Park and Mendip Hill roundabout is shared use, so cyclists are permitted to use it. On the north-south section of the A4130, there are short sections of shared use footway around the Basil Hill and Hawksworth roundabouts only, allowing cyclists to use these localised sections to navigate the junctions.

Figure 9: A4130 Mendip Heights Roundabout

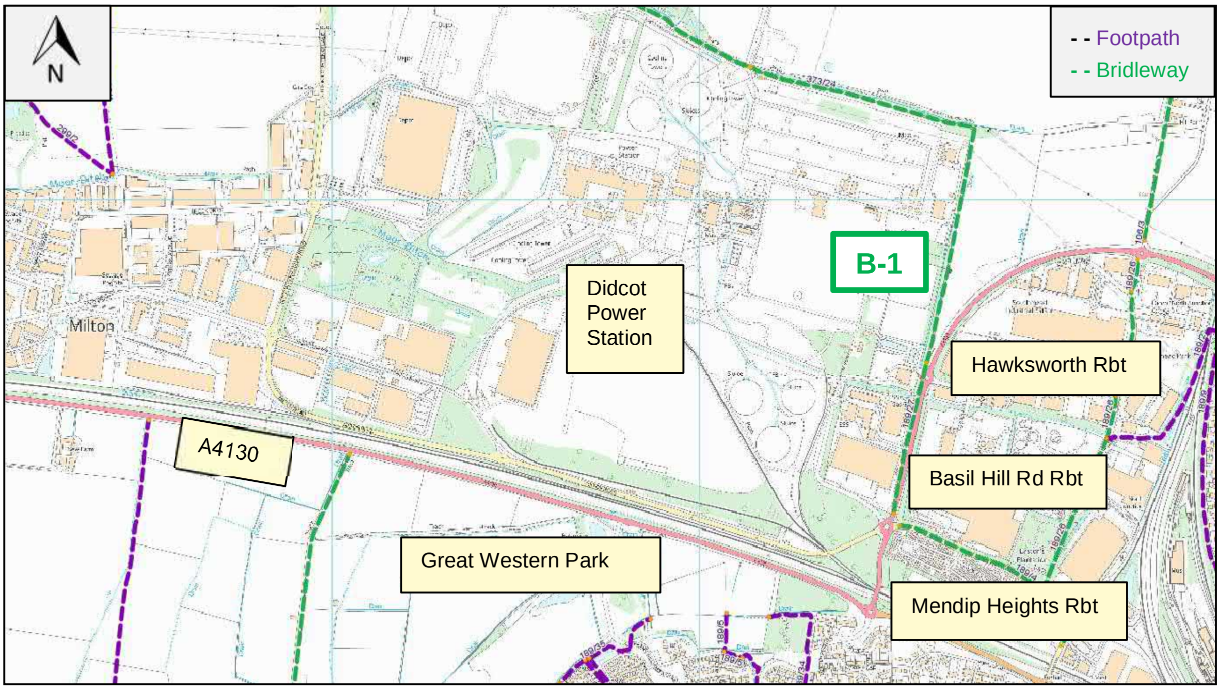


Figure 10: Public Rights of Way within the study area[8]

[8] *https://publicrightsofway.oxfordshire.gov.uk/Web/standardmap.aspx*

The following pedestrian, cyclist and equestrian facilities within the scheme extents have been identified:

Walking network facilities

Bridleway B-1 (373/24/40):

Figure 11: Bridleway entrance indicators and map

Figure 12: Bridleway

This bridleway is 1,250 metres in length and runs from the Purchas Road, A4130 and Hawksworth roundabout to Sutton Courtenay and Appleford On Thames. From south to north, the bridleway does not appear to be present on the ground between Basil Hill Road and Hawksworth roundabouts, but north of here the route follows the perimeter of the Didcot Power Station through green fields, as shown in **Figure 10**.

The proposed scheme implies that this bridleway will be diverted by the planned road, so this information should be taken into account to ensure proper continuation of the PROW route.

Horse-riding network facilities

The bridleway mentioned above is also an equestrian facility.

Cycling network facilities

The National Cycling Network (NCN) Route 5 follows the Bridleway mentioned above, as shown in the **Figure 13** from the Hanson Way leaflet.

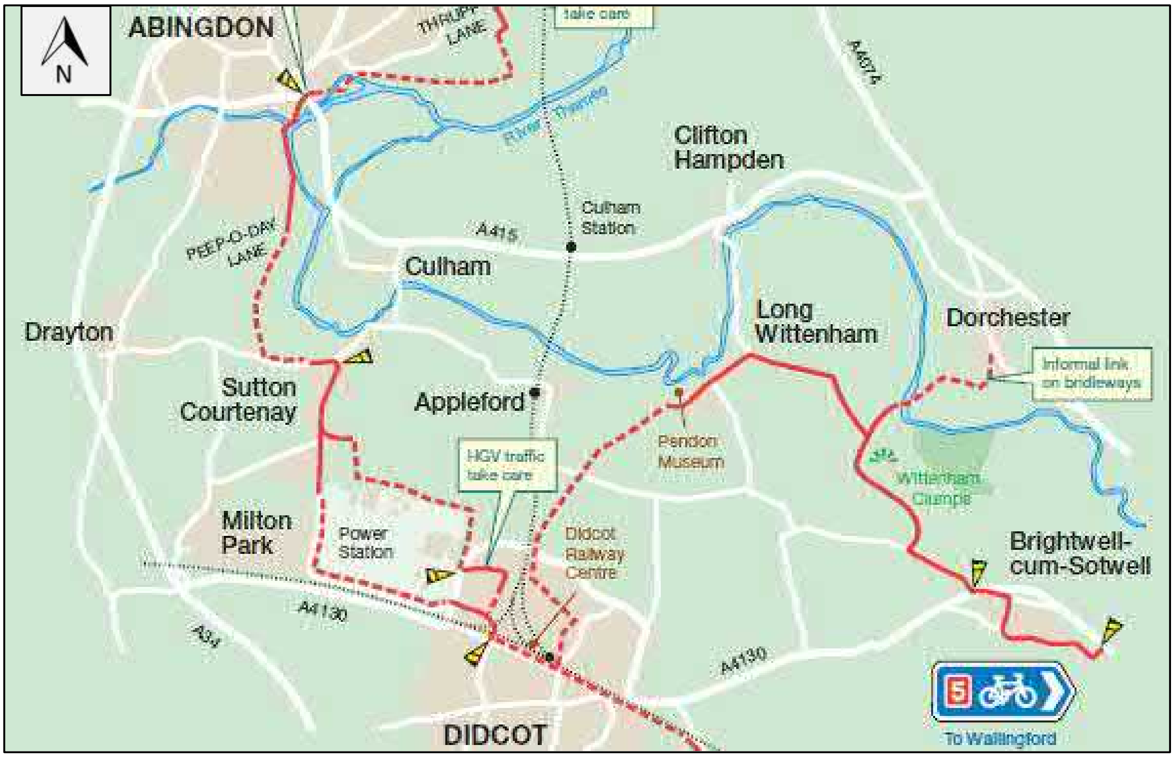


Figure 13: Hanson Way cycle route network within the local area (source: Sustrans)

2.6.2 Local facilities at a strategic level

Public Right of Way (PRoW)

Figure 14 below shows the location of the Public Rights of Way (PRoW) at a strategic level.

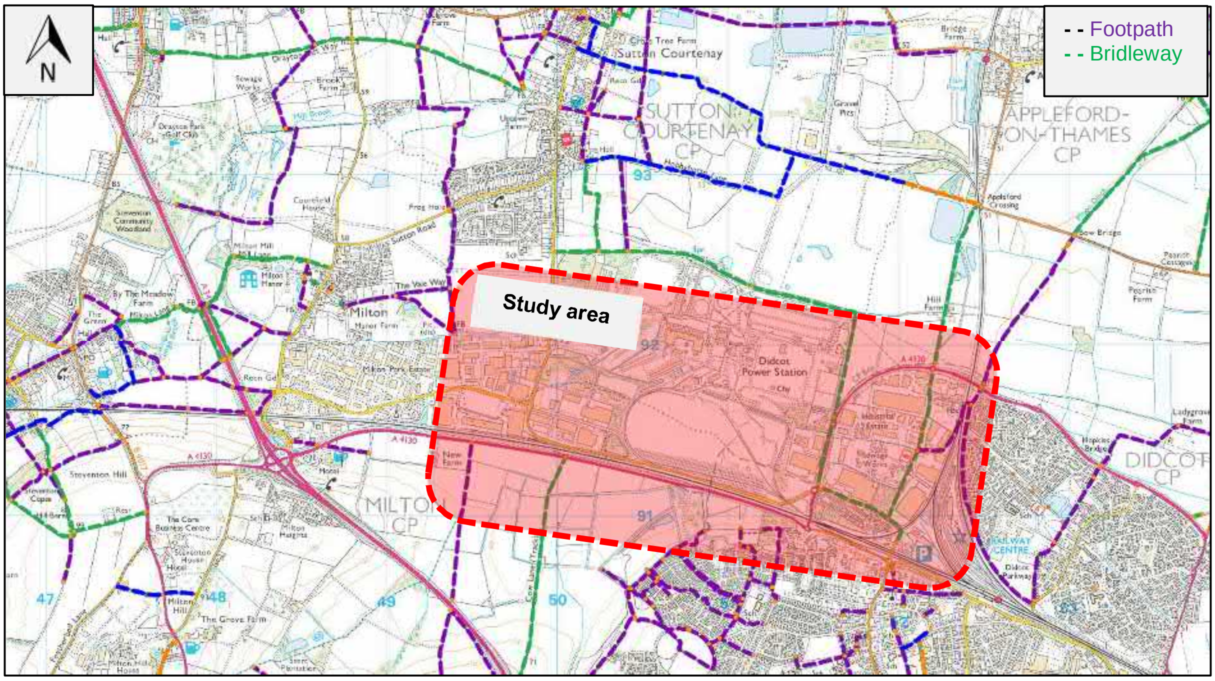


Figure 14: Public Rights of Way outside the study area

Cycling network facilities

There are two National Cycling Network (NCN)[9] routes across the Didcot area, as shown in **Figure 15**.

The local extension of the National Cycle Network Route 5 connects the area with the Didcot Parkway Station. NCN Route 5 is a long-distance route connecting Reading and Holyhead via Oxford, Stratford-upon-Avon, Bromsgrove, Birmingham, Stoke-on-Trent, Chester, Colwyn Bay and Bangor.

National Cycle Network Route 544 connects Didcot and Wantage. It is a 12-mile route on quiet roads, byways and purpose-built paths, offering a tranquil way to explore Southern Oxfordshire.

Some cycle facilities have been completed as part of the planned Science Vale Cycle Network, see **Figure 3**.

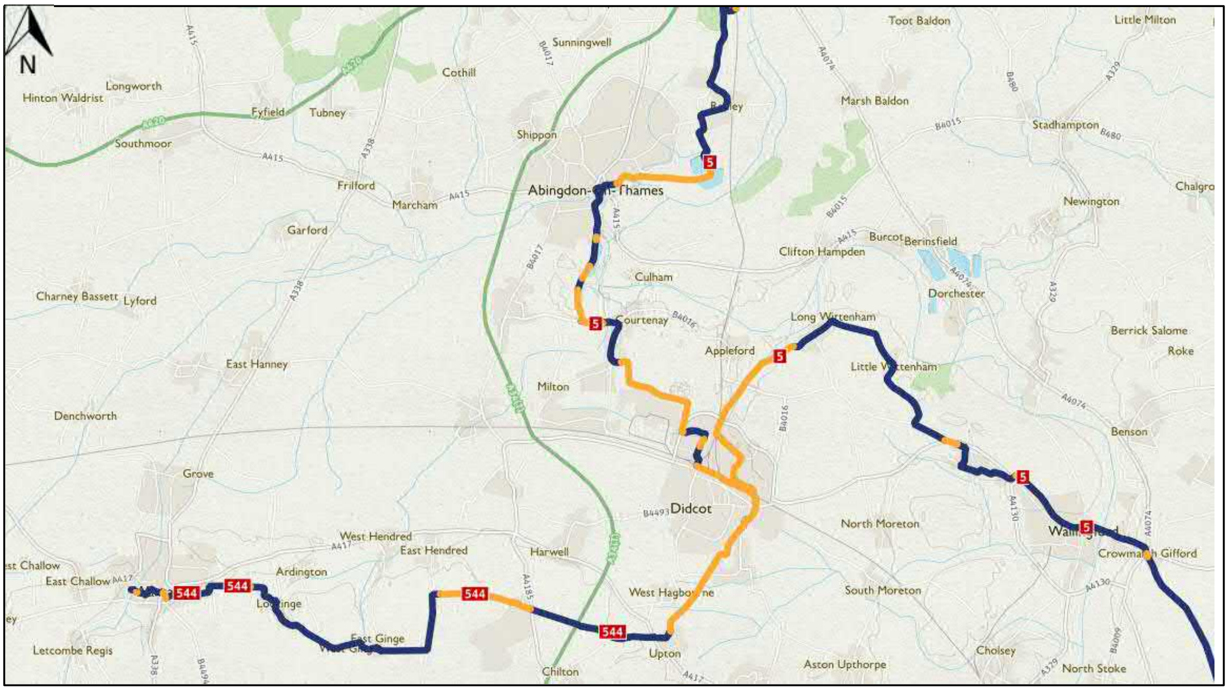


Figure 15: National Cycling Network

Horse-riding network facilities

No equestrian facilities are known, except for the NCN5/bridleway as mentioned above.

9 *https://osmaps.ordnancesurvey.co.uk/ncn*

2.7 Walking, cycling & horse-riding survey data

A 7-day, 24-hour survey was conducted in November 2019 to collect data on walking, cycling and horse-riding movements at three locations within the scheme extents. This data was collected in order to provide a quantitative understanding of the existing walking, cycling and horse-riding demand in the area, primarily on the existing A4130 alignment that the proposed scheme will provide an alternative route to. Additionally, an Automatic Traffic Count (ATC) was conducted at two locations on the A4130 to collect data on traffic speeds.

The movement surveys were undertaken between Monday 11th November and Sunday 17th November 2019. The surveys were undertaken using video survey techniques to cover walking, cycling and horse-riding movements through each of the junctions.

The count locations are shown in **Table 4** below. A map of these locations is shown in **Appendix C**.

Survey ID	Location	Survey Type	Grid Reference
DSB-01	A4130, B4493 and Mendip Heights Roundabout	All NMU movements	E: 451469 N: 190927
DSB-02	Milton Rd, Purchas Rd, A4130 and Basil Hill Rd Roundabout	All NMU movements	E: 451514 N: 191150
DSB-03	A4130, Purchas Rd and Hawksworth Roundabout	All NMU movements	E: 451626 N: 191540
DSB-04	A4130 North of Basil Hill Road Speed Survey	An ATC speed survey	
DSB-05	A4130 (north) Speed Survey	An ATC speed survey	

Table 4: Locations for WCHAR surveys

2.7.1 ATC speed surveys

The following table provides the total number of vehicles recorded in each direction along A4130 North of Basil Hill Road Speed Survey and A4130 (north) during the survey period and their classification.

Survey ID	Location	Direction	Vehicle Classification (%)					
			Cycles (on road)	Motor/ cycle	Car	LGV	HGV	Buses
DSB-04	A4130 North of Basil Hill Road Speed Survey	Northbound	0.13	0.46	78.00	11.10	5.57	0.53
		Southbound	0.15	0.49	75.40	11.52	6.79	0.79
DSB-05	A4130 (north) Speed Survey	Eastbound	0.12	0.39	82.50	8.77	7.86	0.36
		Westbound	0.07	0.28	70.84	15.58	12.44	0.79

Table 5: Total traffic flow and vehicle classification

The average weekly total traffic flow was the following:

- 60,806 vehicles Northbound.
- 54,259 vehicles Southbound.
- 42,919 vehicles Eastbound.
- 35,387 vehicles Westbound.

The following table shows the average and 85%ile speeds recorded on the A4130. The recorded information shows that the majority of vehicles travel within the speed limit at both locations.

Survey ID	Location	Direction	Speed Limit (mph)	Average speed (mph)	85%ile speed (mph)
DSB-04	A4130 (south) Speed Survey	Northbound	50mph	40.8	46.4
		Southbound	50mph	39.6	45.4
DSB-05	A4130 (north) Speed Survey	Eastbound	50mph	41.2	46.8
		Westbound	50mph	43.8	51.8

Table 6: Surveyed average and 85%ile speeds

Figure 16: East-west section of A4130

2.7.2 NMU surveys

The total pedestrian and cycle movements have been marked on a location plan for each surveyed site. The full survey counts are provided in **Appendix D**.

<u>DSB-01: A4130, B4493 and Mendip Heights Roundabout</u>

This roundabout provides a connection between the over-rail bridge and the southern area. The bridge has no footways but there is clear demand evidenced by worn desire lines through the grass verges. The A4130 west of the roundabout has only a southern footway. Finally, there is a footway on the southern side of the B4493 carriageway. This roundabout has only one uncontrolled crossing on the southern arm.

The pedestrian and cycle movements recorded during the survey period are shown in the following figure. During the survey period, one equestrian, eight wheelchairs and twenty-nine non-motorised scooter riders were recorded during the whole week. The total number of NMUs recorded at this location averaged 174 pedestrians and 125 cyclists on a weekday, and 135 and 73 respectively during the weekend.

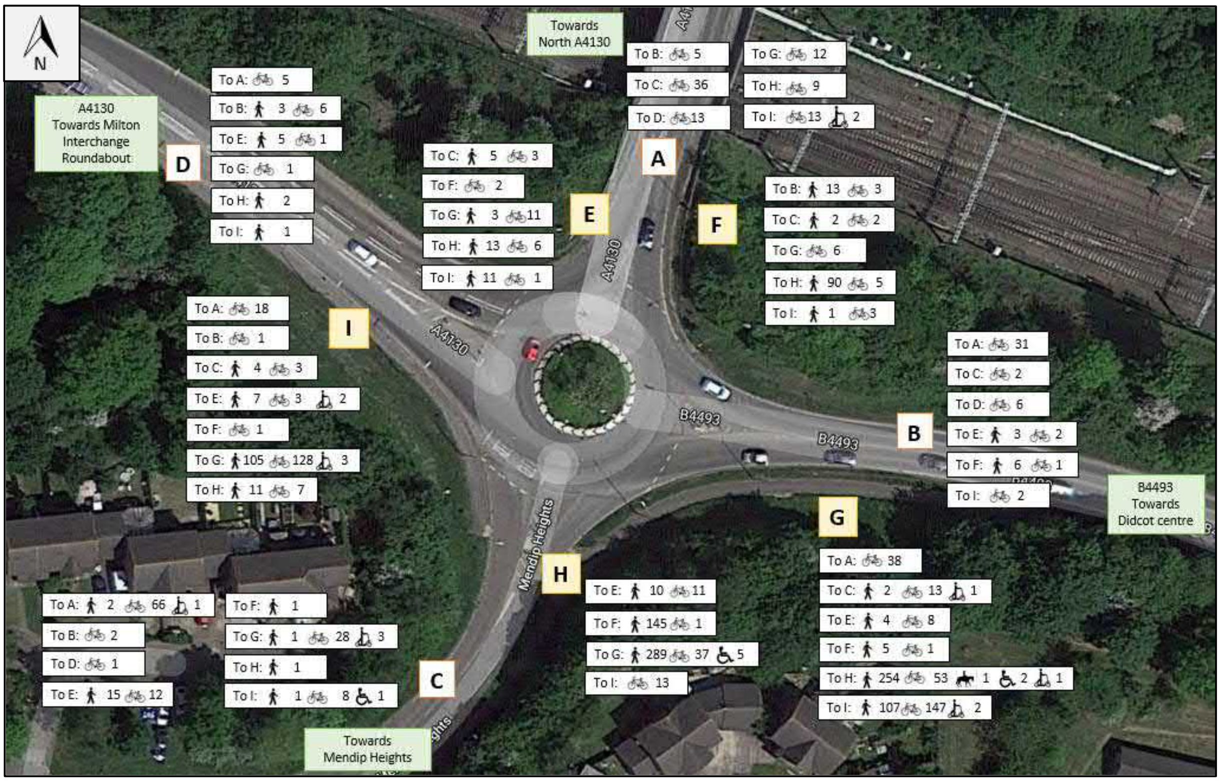


Figure 17: NMU total weekly movements at A4130/ B4493 Roundabout

Figure 18: A4130/B4493 Roundabout

DSB-02: Milton Rd, Purchas Rd, A4130 and Basil Hill Rd Roundabout

This roundabout provides a connection between Milton Park to the west, the former Didcot A Power Station site, the Didcot Northern Perimeter Road, access to the centre of Didcot and the southern area via the over-rail bridge. This roundabout has formal uncontrolled crossings on all arms except on the southern arm where there is no crossing. The bridge has no footways but there is clear demand evidenced by worn desire lines through the grass verges. Milton Road has a southern footway, the northern A4130 has footways on both sides of the carriageway and Basil Hill Road has one in the northern side.

The pedestrian and cycle movements recorded during the survey period are shown in the following figure. During the survey period, no equestrians were counted. Three non-motorised scooter riders were recorded during the whole week. The number of NMUs recorded at location averaged 181 pedestrians and 164 cyclists on a weekday, and 70 and 100 respectively during the weekend.

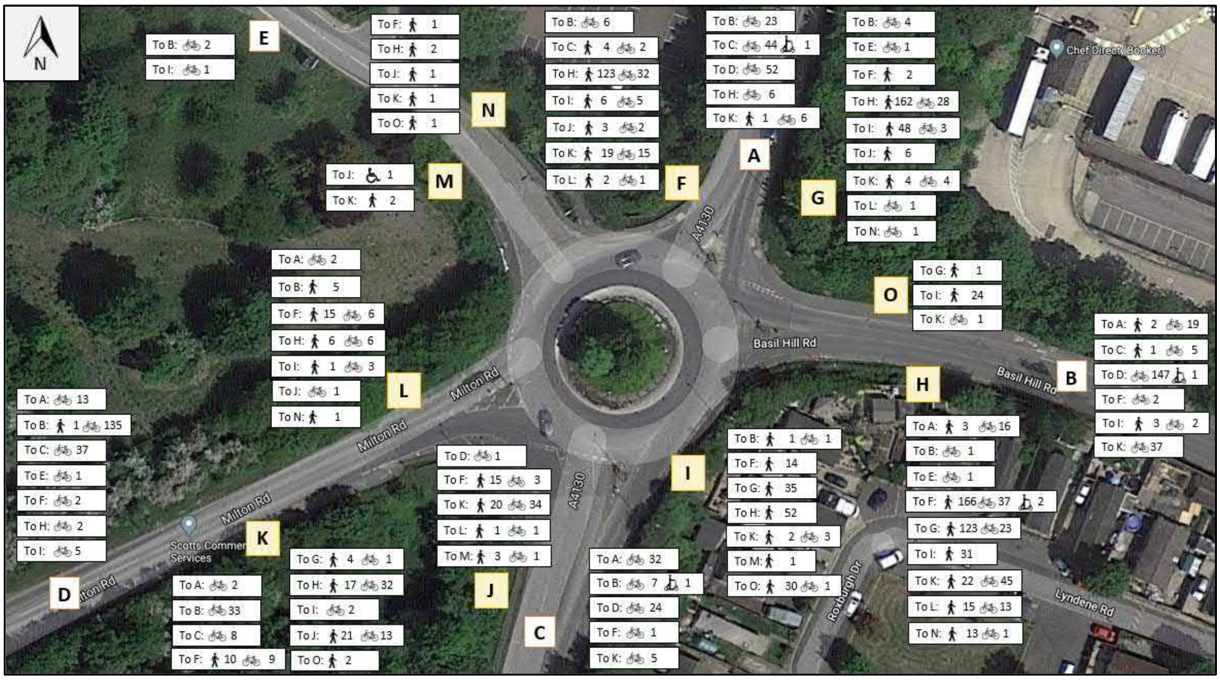


Figure 19: NMU total weekly movements at Purchas Rd, A4130 and Basil Hill Rd Roundabout

Figure 20: Purchas Rd, A4130 and Basil Hill Rd Roundabout

DSB-03: A4130, Purchas Rd and Hawksworth Roundabout

This roundabout provides a connection from the Didcot Northern Perimeter Road to the former Didcot A Power Station site to the west and an industrial area to the east. The southern A4130 arm has footways on both sides of the carriageway but the northern arm has only a footway on the eastern side. There is a direct access to a bridleway (also NCN 5) on the north-western corner of the junction. The eastern arm has footways on both sides of the road. The Purchas Road arm to the power station is privately owned.

The pedestrian and cycle movements recorded during the survey period are shown in the following figure. During the survey period, no equestrians were counted. Two non-motorised scooter riders were recorded during the whole week. The number of NMUs recorded at location averaged 73 pedestrians and 82 cyclists on a weekday, and 66 and 71 respectively during the weekend.

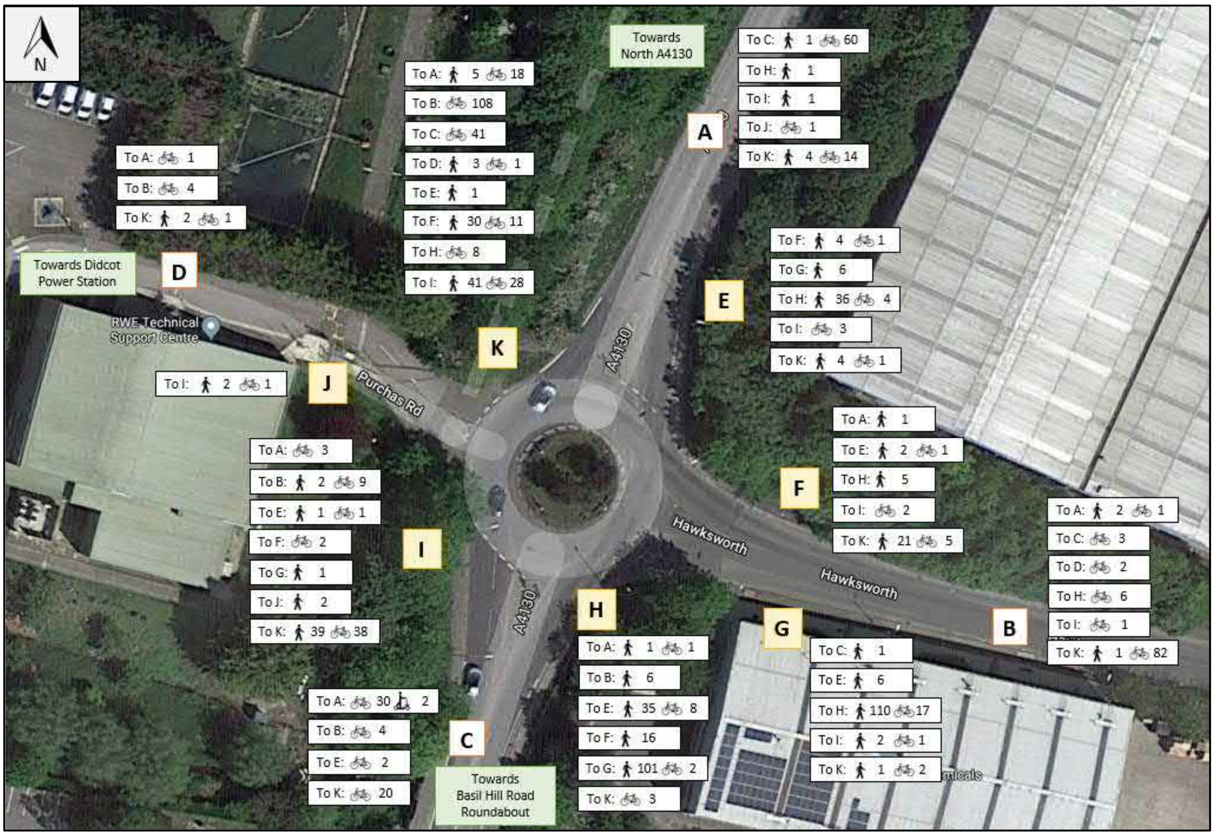


Figure 21: NMU total weekly movements at A4130, Purchas Rd and Hawksworth Roundabout

Figure 22: A4130, Purchas Rd and Hawksworth Roundabout

2.8 Liaison with key stakeholders

In order to be able to incorporate, where appropriate, the comments and views of local people on the preferred alignments into the next stage of the scheme design process of the HIF1 package of schemes an online public consultation was undertaken. This commenced on 20th March and finished on 30th April 2020. Full details of the consultation are available here: www.oxfordshire.gov.uk/didcotupdate.

As a result of Government restrictions on social distancing in response to the COVID-19 pandemic, it was not possible to hold the five public exhibitions that were scheduled for the last two weeks of March 2020. Due to the very tight timescales imposed by Government with respect to the terms of the funding, it was necessary to continue with an online consultation in order to avoid delay to the project programme.

However, to address this OCC undertook additional measures to ensure that as many people as possible were aware of the consultation and were able to access the information. This included sending letters to approximately 22,000 residences in the area, using an innovative virtual exhibition room with live chat function, promoting telephone numbers of officers available to answer questions, and sending printed versions of the materials to those without internet access. This was all in addition to the standard means of engagement (newspaper adverts, press releases, electronic mailouts, OCC website etc).

It should be noted that this scheme was consulted in, alongside the three other Didcot HIF highways schemes. Later in the year, it is intended that stakeholder workshops will be held to invite further input to the design of the walking, cycling, and horse-riding provision in these schemes.

Overall, 24 questionnaires were sent out to a list of identified key stakeholders and user groups and included representatives from the following:

- OCC Public Health
- OCC Public Rights of Way
- Didcot Garden Town Project Manager
- Harwell Campus Bicycle Users Group (HarBUG)
- Sustrans Thames Valley
- CYCLOX / Cycling UK
- Culham Science Centre Bicycle Users Group (CulBUG)
- Milton Park Bike Users' Group (MilBUG)
- Oxfordshire Cycling Network
- Ramblers Association
- Ramblers Association Oxon (& Oxford Fieldpaths Society)
- British Horse Society
- Oxfordshire Association for the Blind
- Oxfordshire Unlimited
- Guide Dogs
- Oxfordshire Transport & Access Group (OXTRAG).

In total, seven replies were received. In general, all respondents supported walking and cycling improvements, even if this means less space for other road traffic.

Table 7 provides a summary of the stakeholder responses relating to the proposed A4130 Widening received during the consultation. A copy of the questionnaire and the full responses received are included in **Appendix E**.

Consultee	Summary of Responses
Oxfordshire County Council Public Health	• Related to pedestrians improvements OCC Public Health commented that: – Providing high quality pedestrian infrastructure will enable people making short trips to walk, but that new routes should be safe and convenient -i.e. providing short cuts and avoiding long wait times at crossings. – Improve walking and cycling conditions in locations where traffic flows are expected to fall by reducing speed limits and/or narrowing existing carriageways in 'decongested' localities. – Reduced traffic congestion could induce demand for more private vehicle journeys and exacerbate the overall long-term trend away from walking. • Related to cyclists improvements OCC Public Health advised the following: – Providing high quality cycle infrastructure will improve people's cycling experience, but should be part of a safe network, and be more direct and convenient than driving to encourage more people to cycle, more often. – Strongly support the full segregation and features such as raised pedestrian and cycle crossings. – Concerns about the proposal impacts on carbon reduction priorities due to the risk that it could induce more traffic.
Public Rights of Way Access Strategy & Develop-ment (OCC PRoW)	• OCC PRoW noted that the improvements for pedestrians are relatively close to traffic and won't encourage new walkers due to the distances involved, but they would enable people who already walk or run on roads in the area to do so more safely. • Recommend creating alternative traffic free routes well away from carriageways and within settlements instead. • Considered that the segregated proposals will provide safer and more convenient facilities for confident cyclists and encourage less confident cyclists to use their bikes for utility and social journeys, provided there were complementary facilities within the neighbouring developments. • OCC PRoW highlighted several potential improvements: – Speaking to local and national British Horse Society (BHS) to identify the needs of equestrians, because they noted that there is no provision for them. – Provide connections for bridleway users. – Just widen the cycle-only path, as facilities will be for bikes. – Focus on facilities within settlements - these must have traffic-free or physically separate routes to encourage non-cyclists to get on bicycles. • Consult the statutory Oxfordshire Countryside Access Forum.
Harwell Campus Bicycle Users Group (HarBUG)	• People will walk along the route for short distances to get to places but not for pleasure alongside a main road, as it is unpleasant, and pedestrians will want to get away from the road as soon as possible. • Pleased with proposed connection between West Didcot and Milton Park, Culham Science Centre and the Power Station site. • Cycle paths and facilities must provide direct and convenient connections to existing and new Didcot housing developments, so that cyclists can easily join and leave the new paths. • Cycle paths need to be integrated into the Science Vale Cycling Network – could form a new route from Culham Science Centre to the Harwell Campus via Valley Park and Harwell Village. • Key general points relating to improved provision for people who wish to walk, cycle or ride a horse outlined below: – Cycle and pedestrian access slips from Science Bridge onto Milton Road would provide a considerable time advantage to cycling versus using car. – Cycle and pedestrian links to Power Station site to avoid another car dependent development. • Concern about the Toucan crossing at Southmead Industrial Estate to ensure it is the re-routed NCN route 5 and connects to the path at the back of the power station.

Consultee	Summary of Responses
	• Concern about the Science Bridge suitability for cyclists regarding the gradients (LTN2/08). • Suggestion of Science Vale Cycle Network route naming is used, as proposed in their *Proposal for Network Naming Convention and Routes*, April 2019.
Cyclox	• Cyclox welcome the improvements proposed to encourage people to walk and cycle more often, as they are safer and reduce motorised threat. • Provisions are not all in the most obvious locations. Crossings should be as close as possible to all junctions – be direct and convenient. • Staggered crossings should be avoided for the convenience of people cycling. • Provide convenient and frequent access into adjacent developments, for pedestrians and cyclists. • Make the designs reduce distances and increase roadside and road-facing development as much as possible, in line with current guidance (Manuals for Streets 1&2). • Concerns about the steeper ramps if a connection is made between the bridge and Milton Road – use cycle wheeling ramps? • Asymmetric cycling provision over the bridge is not appropriate for a new facility. • Raised parallel crossing on the Bridge road is too distant from the junction. • More direct crossing points over future development accesses are preferable. • Concerned that area's current and future residents will travel by car, creating more congestion, pollution and health problems.
Milton Park Bike Users' Group (MilBUG)	• Improvements would encourage people to walk and cycle more often but only if the new infrastructure has proper connections to destinations within the area, including access points to housing and employment areas. • Walking along traffic-busy roads is unpleasant and will be affected unless good segregation (e.g. through planting) can be achieved. • MilBUG highlighted several improvements for consideration: – Safe, direct crossing points with sensor-controlled traffic signals to minimise wait times for cyclists and raised parallel crossings on access roads. – Provide direct connections between the bridge and Milton Road to avoid the detour which would otherwise limit the usefulness of the Science Bridge for cyclists accessing Milton Park. – Gradient of bridge and any accesses to Milton Road for cyclists should be reviewed. Too steep gradients might deter less fit cyclists from using it.
OCN	• OCN welcome the improvements proposed to encourage people to walk and cycle more often but cautioned that if easy driving still remains that good walking and cycling facilities may not encourage a switch to these modes. • Cyclists will be most benefited by the proposals due to the longer distances involved. The routes can form part of a leisure cycling ride while people would use them for 'function' and not for 'pleasure'. • Supported walking and cycling improvements as they are separated from motor vehicles and pedestrians and cyclists are segregated. Crossings are well-designed crossings, particularly the inclusion of parallel crossings. • Suggested further improvements: – Add walking and cycling access to Milton Road from Science Bridge. – Ensure all side road crossings have cycle priority. Parallel crossings suggested to achieve this. – Check gradients.
OXTRAG	• OXTRAG welcomes the improvements for encourage people to walk and cycle more often. • Agree with the walking and cycling facilities proposed and are pleased that there will be an off-carriageway cycleway. • Do not expect anyone to want to ride a horse along the proposed road.

Table 7: Summary of Stakeholder Response to Consultation

3. User Opportunities

The opportunities highlighted below are deemed to be relevant to the highway scheme and should be considered by the design team leader throughout the progression of the highway scheme design in addition to any further opportunities that may arise through the ongoing development of the design phases.

It is noted that opportunities labelled “KS-X” have been identified through key stakeholder consultation carried out in April 2020 and have only been raised following the completion of the feasibility design stage due to programme constraints. Additional opportunities identified are to be reviewed by designers at the preliminary design stage and to be included in the next stage WCHAR review.

3.1 General

Opportunity 1

Ensure future pedestrian and cyclist facilities within the public highway are integrated with proposed facilities within new developments, to provide a joined up optimal walking and cycling networks. Seek funding from developers to deliver the overall networks.

Opportunity 2

Improvement and levelling of the existing footway to avoid potholes and other discontinuities that may cause the users to feel unsafe and discomfort.

Opportunity 3

Provision of appropriate crossings to enable users to safely cross the new road including consideration for a Pegasus crossing where Bridleway B1 crosses the proposed road link.

Opportunity KS-1

Provide priority for pedestrians and cyclists across development access roads, to promote active travel.

Opportunity KS-2

Provision of convenient, frequent and direct links into the future development areas from the proposed link road.

3.2 Strategic opportunities

Opportunity 4

Provision of a segregated cycle track and footway along the new road link, to avoid potential discomfort and conflict between pedestrians and cyclists, as walking and cycling demand increases.

Opportunity 5

Minimize the severance caused by the rail line, and between future development areas.

Opportunity 6

Provision of bus services along the new route.

Opportunity 7

Provide high quality link between the proposed scheme, the existing Public Rights of Way, and integrated with the Science Vale Cycle Network and the National Cycle Network (NCN), so that can be fully utilised. Ensure the bridleway and NCN 5 are upgraded, and any severance resulting from the proposed road is minimised.

Opportunity 8

Provide improved facilities along the whole alignment. The new Science Bridge will remove traffic to the old roundabouts.

Opportunity KS-3

Provide an appropriate gradient for pedestrians and cyclists on the Science Bridge approaches, so these users are not discouraged.

Opportunity KS-4

Consider provision of direct connections between Milton Road and the Science Bridge to improve access to the eastern end of Milton Park, and make walking and cycling more convenient than by car.

3.3 Pedestrian specific opportunities

Opportunity 9

Conversion of the existing shared-use facilities to segregated facilities throughout the scheme would provide a safety benefit for all users. People whose mobility is reduced due to a disability, because of their age, as a result of pregnancy or with young children in pushchairs, will avoid conflicts with cyclist due to sharing space and will feel more comfortable. (see also Opportunity #10).

3.4 Cyclist specific opportunities

Opportunity 10

Convert the shared existing footways to a segregated cycle track throughout the scheme to make off road facilities more attractive and usable, particularly for the less confident cyclists. Provision of a segregated cycle track will minimise the potential for conflict between pedestrians and cyclists, as walking and cycling demand increases. (see also Opportunity #8).

Opportunity 11

A4130/Milton Road/Basil Hill Road – Existing off-carriageway cycle facilities are provided between Milton Road and Basil Hill Road, however this junction has been identified as a cluster site (in the Didcot to Culham River Crossing WCHAR Assessment Report) due to the number of collisions reported over the 5-year study period involving vehicles failing to give way to cyclists negotiating the roundabout. Consideration shall be made to providing improvements at the junction to improve the attractiveness of the off-carriageway facilities to cyclists or improving warning and visibility of cyclists to approaching vehicles.

3.5 Equestrian specific opportunities

Opportunity 12

Provision of an equestrian link to the area by using the current bridleway.

4. Walking, Cycling and Horse-Riding Assessment Team Statement

As Lead Assessor, I confirm that this walking, cycling and horse-riding assessment report has been generally compiled in accordance with DMRB GG 142 (refer to section 1 for exceptions). The walking, cycling and horse-riding assessment was undertaken by the following assessment and review team:

Name	Andy Blanchard
Position	Associate Director - WCHAR Lead Assessor
Organisation	AECOM
Signed	
Date	15/05/2020

Name	Rebeca Bolado Fernandez
Position	Graduate Engineer - WCHAR Assessor
Organisation	AECOM

As the design team leader, I confirm that the assessment has been undertaken at the appropriate stage of the highway scheme development.

I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in GG 142.

Name	Mike Ager
Position	Principal Engineer - Design team leader
Organisation	AECOM
Signed	
Date	15/05/2020

aecom.com

Didcot Garden Town HIF1 - Didcot to Culham River Crossing

Walking, Cycling and Horse-Riding Assessment Report

Oxfordshire County Council

Project reference: Didcot Garden Town HIF1
Project number: 60606782

May 2020

Quality information

Prepared by	Checked by	Verified by	Approved by
Kin-Yun Lo Senior Engineer	Andy Blanchard Associate Director	Hein Pretorius Principal Engineer	Karl Chan Associate Director

Revision History

Revision	Revision date	Details	Authorized	Name	Position
P01	19/12/2019	DRAFT		Karl Chan	Associate Director
P02	15/05/2020	FINAL		Karl Chan	Associate Director

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Executive summary

This report outlines the Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) prepared for Oxfordshire County Council for the proposed Didcot to Culham River Crossing scheme. This scheme is one of four that comprise the HIF1 Didcot Garden Town infrastructure project. Whilst the process set out in the Design Manual for Roads and Bridges (DMRB) GG 142 document has generally been followed in preparing this WCHAR Report, as this scheme is not a trunk road some alterations have been made to reflect this, such as a reduced study area.

The aims of this study are to gain an understanding of all relevant existing facilities for pedestrians, cyclists and equestrians (the users) in the local area, to provide background user information that can be referred to throughout the design process and to identify opportunities for improvement for users.

The WCHAR process is divided into two phases:

- Assessment (this report): undertaken during the options or concept stage of a highway scheme to capture the existing conditions for pedestrians, cyclists and equestrians, and identify the opportunities for improvement for these modes.
- Review: shall be completed as an ongoing review during the various design stages of the highway scheme and shall record the design decisions relating to the provision of walking, cycling and horse-riding facilities.

The proposed Didcot to Culham River Crossing will deliver a new link road connecting the A4130 at Didcot with the A415 Abingdon Road near the Culham Science Centre entrance, including a new full standard river crossing.

This Assessment Report documents the relevant local and national relevant policies and strategies. Within the study area, there has been a total of 36 recorded collision in the five-year study period, of which 8 were serious and 28 were slight in severity. One cluster site was identified at the A4130/Milton Road roundabout. There are a number of local and regional bus services in the area, however none of which serve the route between Didcot and Culham Science Centre.

Movement within the study area is dominated by the private car. The key trip generators in the area include the Culham Science Centre, Southmead Industrial Estate, Hanson, FCC Environment waste transfer site. The numbers of pedestrians and cyclists observed during the site visit and throughout the surveys conducted in November 2019 was generally low, however cycle demand was observed along the main connector roads within the scheme extents including the A415 Abingdon Road, along B4016 Main Road through Appleford and the A4130 at Southmead Industrial Estate.

A public information event covering the four HIF1 schemes was held throughout April 2020, and relevant WCHAR stakeholders were sent a targeted questionnaire to capture their views on the feasibility designs and needs of the local users. Their responses are summarised in this report.

Identified user opportunities as part of the assessment included:

- Provision of dedicated, safe and direct cycle and pedestrian facilities along the proposed new route with good quality links to existing cycle routes, proposed cycle routes as part of the Science Vale Cycle Network, and existing Public Rights of Ways within the scheme extents.

- Improvements to pedestrian and cycle access to Appleford Railway Station, and cycle facilities provided at railways stations.
- Improvements to the connection between Ladygrove Estate and Southmead Industrial Estate
- Improvements to existing cycle facilities along the A415 to cater to cycle demand along the commuter route and encourage cycling off-carriageway.

1. Background and highways scheme description

1.1 Background

The proposed Didcot to Culham River Crossing scheme is one of the four major road schemes identified in the Access to Science Vale Options Appraisal Report, which were developed by a working group of county and district officers.

The A4130 Widening scheme is located in the Science Vale area, shown in Figure 1, which comprises the towns of Didcot (including Milton Park and Didcot Power Station) and Wantage (& Grove) together with the established research centres at Culham Science Centre (CSC) and Harwell International Business Centre (IBC) together with the area between these settlements.

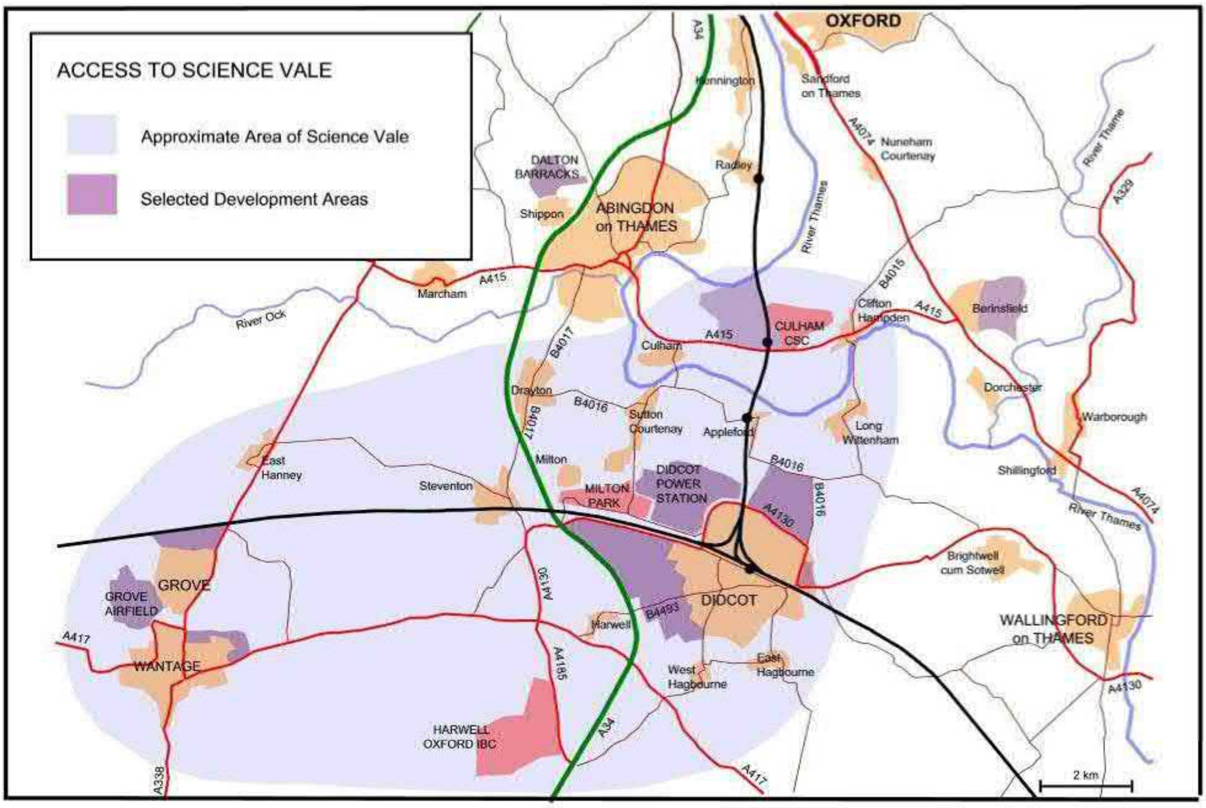

Figure 1 Science Vale Area

The scheme will have a significant impact on the highways network in the area and therefore OCC have requested that the GG 142 WCHAR is completed to inform the scheme design.

In accordance with GG 142, the scale of the scheme has been assessed (by the Lead Assessor) and is considered to qualify as a 'large' scheme for the purposes of this assessment, by virtue of the nature and extent of the proposed improvements. The scheme will therefore be subject to a Walking, Cycling & Horse-Riding Assessment (this document) during the feasibility design stage of the proposed highway scheme. This will then be followed by Walking, Cycling & Horse-Riding Reviews at preliminary and detailed design stages. However, the assessment will be based on the extent for a small scheme by virtue of this not being a trunk road, to which GG 142 applies.

1.2 Proposed highway scheme

The Didcot to Culham River Crossing lies to the west of the Didcot to Oxford rail line and links the A4130 to the south at Didcot and the A415 Abingdon Road to the north at Culham. The route will also provide a connection to B4016 at Appleford.

A site location plan is shown in Figure 2.

Figure 2: Site Location Plan[1]

The Didcot to Culham River Crossing (the feasibility design is provided in **Appendix A**) is to provide a new link road connecting the A4130 at Didcot with the A415 Abingdon Road to the west of the Culham Science Centre entrance, including a new full standard river crossing. This corridor will link with the proposed Clifton Hampden Bypass to the north east of the corridor at Culham Science Centre, and also the proposed Science Bridge and the A4130 Widening towards Milton Interchange. It shall be noted that this Assessment, with the exception of the stakeholder consultation covered in Section 2.8 of this report, has been carried out based on the feasibility design developed by Atkins in October 2019, and provided by OCC (drawing no. 5189452-ATK-DRG-HW-0004 to 0006).

Currently the River Thames provides a barrier within the Science Vale area, separating Culham Science Centre and the rest of the area to the south of the Thames. There are two bridges which currently provide a link across the river, located at Culham and Clifton Hampden however these are low standard, single track crossings controlled by traffic signals. The main objective of the new corridor is to improve accessibility and provide congestion relief on the existing road network by providing an alternative, direct route between Didcot, Appleford and Culham. The proposed new highway will also provide the required infrastructure to support the proposed employment and housing growth in Didcot and the surrounding Science Vale area and will also open an opportunity to provide a bus service between Didcot and Culham.

The scheme objectives include improving conditions for walking, cycling and horse-riding in the area, as there are currently no direct connections or facilities along the route. This is likely to include segregated facilities for pedestrians and cyclists along the corridor with crossings at any junctions and connection to any adjacent routes wherever possible.

[1] *"Google Map™ and Google Streetview™ have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google Inc."*

The proposal includes a single carriageway in the north-south direction between an upgraded roundabout at the A4130/Collett junction and a point to the west of the Appleford Railway Station at the B4016 Main Road. A new roundabout is proposed to the west of Appleford Station. To the north of the Appleford / B4016 roundabout, is a proposed section of single carriageway which will provide a direct connection to the A415 to the west of the Culham Science Centre. This will involve a new bridge across the River Thames and a proposed new 4-arm roundabout on the A415 Abingdon Road. The road corridor will be approximately 3-4km in length and will include a two-way segregated 4m cycleway and 2m footway on the western side of the carriageway.

1.3 WCHAR study area

The GG 142 requires a minimum radius of 5km for the study area of a large scheme on the trunk road network. However, this scheme does not form part of the trunk road network, and after careful review of the requirements and proposed works, a reduced local study area extent (1km radius) has been agreed with OCC to be appropriate for this study.

Figure 3 shows the study area.

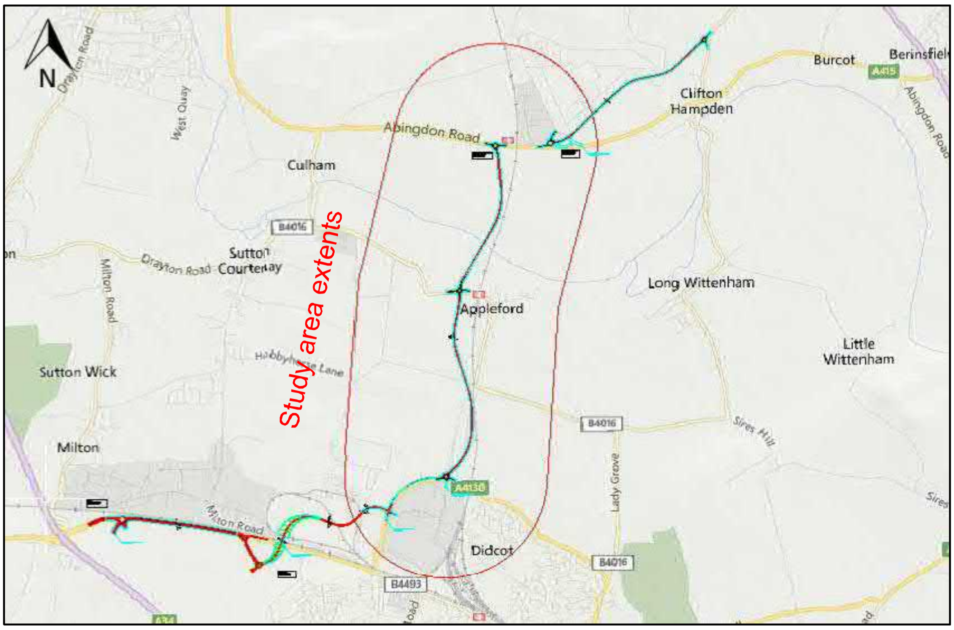

Figure 3: WCHAR study area location plan[2]

[2] *"Google Map™ and Google Streetview™ have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google Inc."*

2. WCHAR assessment

2.1 Assessment of walking, cycling and horse-riding policies and strategies

The following policy documents have been reviewed as part of the Assessment:

Connecting Oxfordshire: Volume 4 Local Transport Plan 2013-2031 (Adopted 2016) - Active & Healthy Travel Strategy.

The strategy states that the number of people who usually drive short journeys to work in Oxfordshire is increasing and therefore roads are becoming more congested. Oxfordshire County Council have a vision to make cycling a safe, simple and accessible option for people of all ages, and in turn make cycling a major mode of travel and reduce air pollution in Oxfordshire. This will include an increase in multimodal door-to-door trips by integrating the cycling and public transport networks to allow bike-rail and bike-bus journeys.

As part of the Strategy, a Cycle Premium Route between Didcot to Culham Science Centre, via the existing National Cycle Route 5 between Didcot and Long Wittenham and then on-road towards Culham Science Centre via Clifton Hampden Bridge, has been identified as part of the proposed Science Vale Cycle Network as shown in Figure 4. This cycle network has been identified to be a focus for future investment to cycling in the area. Given the importance of the route between the two key attractors in the region, and the existing site constraints at the Clifton Hampden Bridge, the proposed Didcot to Culham river crossing will provide an opportunity for a high quality cycle route as an alternative to the existing.

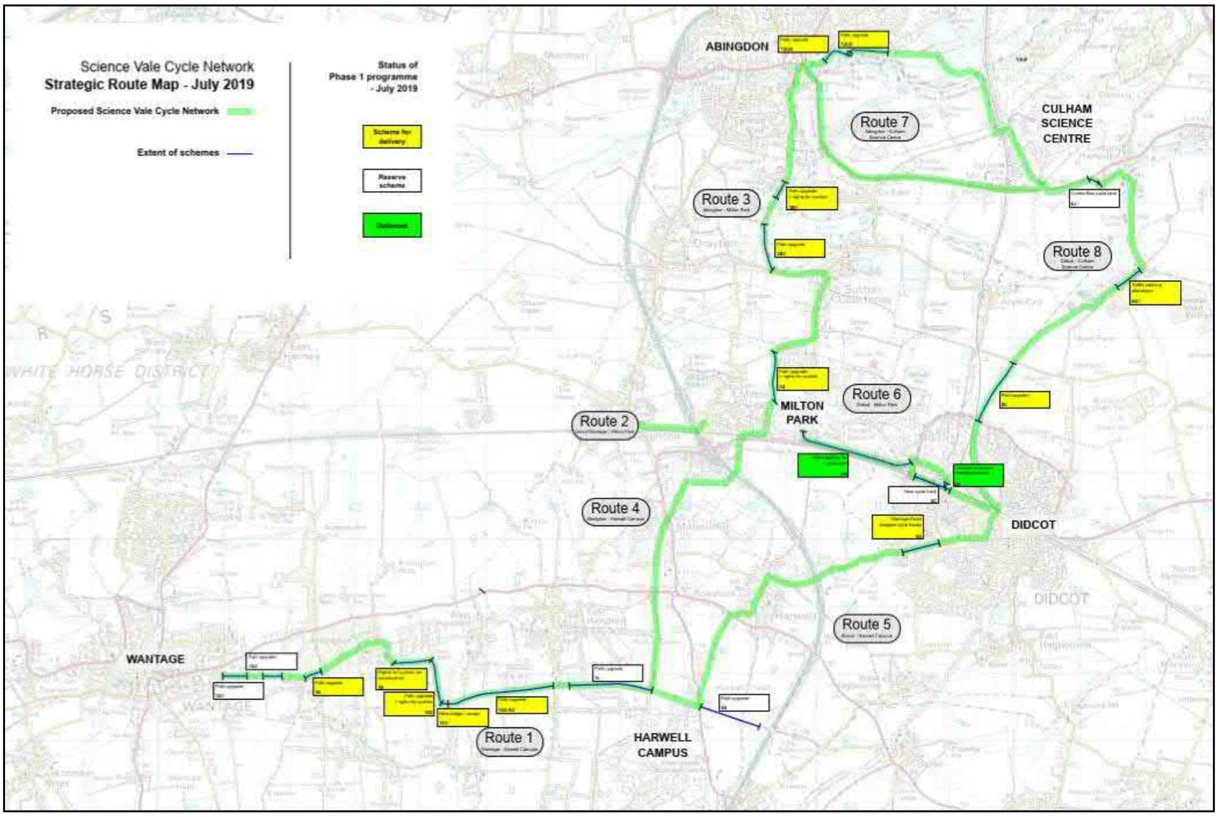

Figure 4 Proposed Science Vale Cycle Network route map[3]

[3] Oxfordshire County Council, Science Vale Cycling Network [online] (December 2019) https://www.oxfordshire.gov.uk/sites/default/files/file/roads-and-transport-major-projects/science_vale_cycle_network.pdf

Oxfordshire County Council also have an overall aspiration to enable and encourage walking to be a travel mode of choice for short trips and the most popular and accessible form of recreational activity. The ambition is to make all streets and public spaces to be accessible to all users.

This scheme shall therefore ensure that walking and cycling facilities, suitable for all types of users, are provided along the proposed highways, and provide improvements to the overall walking, cycling and horse-riding network across the area.

Oxfordshire Rights of Way Management Plan 2015-2025

The Rights of Way Management Plan is a ‘daughter’ document to the Oxfordshire Local Transport Plan and supports the delivery of the Councils overarching strategic goals. The main strategic objectives which are relevant to the proposals and considered as part of this Assessment include:

- Improve public health and wellbeing by increasing levels of walking and cycling, and enabling inclusive access to jobs, education and services.
- Reduce the proportion of journeys made by private car by making the use of public transport, walking and cycling more attractive.
- Maximise the use and value of existing and planned sustainable transport investment, by linking and integrating this with planned development to allow continued and increased use of the right of way network.

Vale of White Horse District Council – Local Plan 2031 (February 2018)

The focus for the South East Vale area is to “ensure that employment growth centred on the Enterprise Zone and Science Vale sits alongside strategic housing and infrastructure to support sustainable growth”.

On the district boundary, located in neighbouring South Oxfordshire, is Didcot which has been identified as a location for strategic growth within the adopted South Oxfordshire Core Strategy, which allocates 6,300 homes within South Oxfordshire at Didcot. The Core Strategy identifies the need for significant regeneration with proposals for improvements to the town centre and railway station. As there is significant change proposed around Didcot, including housing, employment and large infrastructure projects, it is recognised that investments must be made to deliver strategic schemes such as the “Culham Crossing” and the Science Vale strategic cycle network, which includes a direct cycle route between Didcot and Culham (see Figure 5).

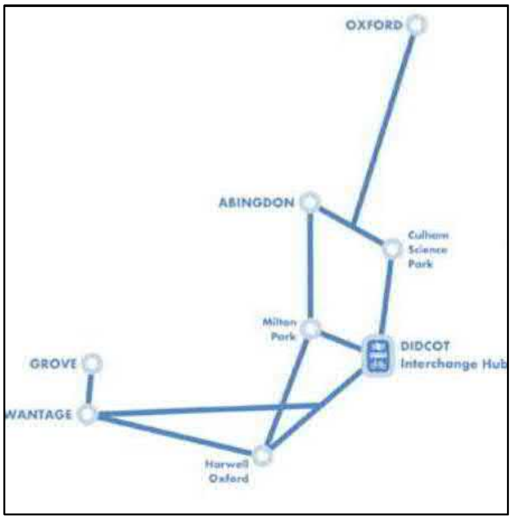

Figure **5** Proposed Science Vale strategic cycle network[4]

South Oxfordshire District Council – Emerging Local Plan 2011-2034 (January 2019)

A new Thames road crossing between Culham and Didcot Garden Town has been identified in the emerging plan as one of the strategic transport schemes in which land should be safeguarded for (Policy TRANS1).

It states that "This crossing has strategic transport benefits and is required to support development proposed in the emerging South Oxfordshire Local Plan, as well as development allocated in the Vale Local Plan Part 1 and development proposed in the emerging Vale Local Plan Part 2. It is also part of a package of transport infrastructure in this area as identified in the Science Vale Area Transport Strategy in the Oxfordshire Local Plan, which includes the Clifton Hampden Bypass and the Didcot Northern Perimeter Road."

South Oxfordshire District Council – Core Strategy 2027 (adopted December 2012)

The Core Strategy states that large amounts of economic investment and housing are planned in the Science Vale Area, and "improvements are needed to ease access around this area particularly in respect of east-west movements".

One of the key development objectives is the "redevelopment of parts of Culham Science Centre to provide further high value jobs". South Oxfordshire District Council has committed to proactively working with Culham to develop an agreed masterplan that facilitates this growth and considers the wider traffic implications of proposals.

The proposed Didcot to Culham river crossing scheme will support the movement that strengthens links between key places and will provide the necessary infrastructure to support the redevelopment of Culham Science Centre and the proposed increase in jobs; as well as the developments in Didcot.

South Oxfordshire Infrastructure Delivery Plan (January 2019 update)

As part of the delivery plan, land adjacent to Culham Science Centre has been identified for the delivery of 3500 dwellings. In order to support these proposed developments, key infrastructure requirements for Culham include contributions towards the Culham - Didcot Thames River Crossing, Clifton Hampden bypass and the upgrading of the A4074/B4015 Golden Balls junction; as well as the enhancements to encourage sustainable travel.

[4] Vale of White Horse District Council, Vale of White Horse - Local Plan 2031 (adopted December 2016)

Didcot Garden Town Delivery Plan (October 2017)

The Didcot Garden Town vision recognises that Didcot will grow from approximately 26,000 people to over 60,000 by 2031. With this growth, Didcot is expected to become the largest town in Southern Oxfordshire and if the means by which residents move around the town remains unchanged, town wide journeys by car will double. This will result in pressure on the existing highways network, and investment is required to provide the necessary infrastructure to enable a modal shift away from private cars towards other modes of transport.

The east-west movement corridors and Science Bridge have been identified as one of the key proposals to achieve sustainable movement across the area. One component of these corridors is the Didcot to Culham River Crossing as reviewed as part of this Assessment.

A new cycle route between Harwell, Didcot and Culham, referred to as the Garden Line, has also been identified in the delivery plan. This is proposed to include upgrading of the route to Culham and a new river crossing to the east of the railway line.

Design standards

The following design standards have also been identified and considered during the assessment:

- Oxfordshire Walking Design Standards (A guide for Developers, Planners and engineers, summer 2017)
- Oxfordshire Cycling Design Standards (A guide for Developers, Planners and engineers, summer 2017)
- CD195 Designing for Cycle Traffic
- CD143 Designing for walking, cycling and horse-riding
- Advice on road crossings for horses (The British Horse Society)

2.2 Collision data

Collision data has been provided to AECOM by Oxfordshire County Council for a 5-year period between 9th June 2014 and 8th June 2019. There was a total of 36 collisions recorded within the scheme extents, with 47 casualties, the severity is summarised by year in Table 1 and Table 2. As shown, total yearly collisions do not show any clear evidence of deterioration or improvement in road safety along the local highways.

Severity / Year	2014	2015	2016	2017	2018	2019	Total
Fatal	0	0	0	0	0	0	0
Serious	1	2	2	1	2	0	8
Slight	8	4	3	7	4	2	28
Total	9	6	5	8	6	2	36

Table 1: Total collisions by severity

Severity/ Year	2014	2015	2016	2017	2018	2019	Total
Fatal	0	0	0	0	0	0	0
Serious	1	2	2	1	2	0	8
Slight	12	6	5	8	6	2	39
Total	13	8	7	9	8	2	47

Table 2: Total casualties by severity

For the purpose of this assessment, a cluster site has been defined as an area with seven or more collisions within a 100m radius over a 5-year study period. A single cluster site was identified in study area at the A4130/Milton Road roundabout. A total of 12 collisions were reported within the study period, of which 5 were serious and 7 were slight in severity. All 5 serious collisions involved vehicles entering the roundabout from the A4130 and failure to give way to cyclists negotiating the roundabout from Milton Road on the west towards Basil Hill Road on the east. 3 of these collisions occurred during the hours of darkness and 2 during daylight hours. 1 incident reported glare from the sun as a possible contributory factor.

Of the 7 slight collisions, 5 collisions involved a vehicle entering the roundabout from the A4130 and failure to give way to cyclists negotiating the roundabout from Milton Road on the west towards Basil Hill Road on the east. All these collisions occurred during daylight hours, 3 of these took place in wet conditions. The 2 remaining slight collisions involved a HGV failing to give way to a motorcyclist during dry, dark conditions, and an incident involving a vehicle colliding with a cyclist travelling on the nearside on the A4130 approach to the Milton Road roundabout.

Table 3 provides a summary of the collisions based on location, severity and type. **Appendix B** contains the full details of the collisions, which are also presented with bubble diagrams on the plot included in drawing CHB-ACM-HGN-SW_ZZ_ZZ_ZZ-DR-Z-0001.

Location	Collision severity	Collision type	Pedestrians / cyclist / horse-rider involved?	Contributory factors
Culham				
A415 Abingdon Road/ Station Road junction	1 slight	1 shunt	No	Failure to look - right turning vehicle
A415 Abingdon Road, west of Culham Science Centre entrance	1 serious, 2 slight	3 shunt	No	Failure to look - overtaking, stationary vehicle. Sudden braking
A415 Abingdon Road, east of Europa School UK	1 slight	1 head-on collision	No	Failure to look – overtaking
Appleford				
B4016, west of Appleford station	1 slight	1 shunt	Yes (Cyclist travelling to school)	Failure to judge speed

Location	Collision severity	Collision type	Pedestrians / cyclist / horse-rider involved?	Contributory factors
B4016, Bridge Farm House access	1 slight	1 shunt	No	Following too close - right-turning vehicle
B4016, Appleford station	1 slight	1 pedestrian collision	Yes (Pedestrian)	Driving too close, no footway at station
B4016 Main Road / Chambrai Close & Church Lane	1 slight	1 shunt	No	Following too close - right-turning vehicle
	1 serious,	1 stationary vehicle collision	Yes (Cyclist)	Failure to see stationary vehicle
	2 slight	2 loss of control	No	Impaired by alcohol Fatigue/illness
B4016, east of Appleford Level Crossing at NCR5 access	1 slight	1 cyclist collision	Yes (Cyclist)	Failure to look – right turning cyclist
Didcot				
A4130 / Collett	3 slight	1 cyclist collision	Yes (Cyclist)	Failure to look/judge speed (hours of darkness)
		1 failure to give way	No	Failure to look properly/poor manoeuvre
		1 loss of control	No	Illness
A4130 / Avon Way	2 slight	1 failure to give way	No	Failure to look/obstructed view
		1 loss of control	No	Wet conditions, deposits on road
Avon Way / Brunstock Beck	1 slight	1 failure to give way	Yes	Failure to look properly
Basil Hill Road / Thames Water access road	1 sight	1 cyclist collision	Yes (Cyclist)	Failure to look properly, cyclist attempting to turn right
A1430 / Hawksworth / Purchas Road	3 slight	1 shunt	No	Failure to look properly/judge speed
		1 failure to give way	No	Impaired by alcohol
		1 failure to give way	Yes (Cyclist)	Failure to look properly / dark and wet conditions
A4130 / Milton Road **(Cluster site)**	5 serious, 7 slight	10 cyclist collision	Yes (Cyclist)	Failure to give way to cyclist negotiating roundabout.
		1 cyclist collision	Yes (Cyclist)	A4130 SB approach, cyclist on nearside hit by car

Location	Collision severity	Collision type	Pedestrians / cyclist / horse-rider involved?	Contributory factors
				on approach to junction
		1 motorcyclist collision	No	HGV failure to give way to motorcyclist on roundabout, travelling from Milton Road to Basil Hill Road.

Table 3 Collision summary by location

2.3 Multi-modal transport services and interchange information

Pedestrians, cyclists and equestrians may combine their modes of travel with public transport as part of a longer trip. As part of this Assessment, public transport services and associated infrastructure such as rail and bus stations (including bus stops) and interchanges have been identified to enable an appropriate assessment of the integration of such modes.

2.3.1 Bus services

As the proposed corridor passes over currently undeveloped agricultural lands, there are no existing bus services which run along this route.

There are no bus routes which currently run between Didcot and Culham Science Centre, and no buses currently serve Appleford. However, there is a single bus (route 45) which runs between Abingdon and Culham Science Centre during weekdays during the AM and PM peak only. Bus services (connector route 33 and X33) are also available between Didcot and Abingdon.

Table 4 outlines the bus routes available, which is also presented within the network map on Figure 6.

Bus route	Operator	Frequency	Days of service	Route connections
X33 / 33 Connector	Thames Travel	Hourly 05:30 to 20:20, Additional peak service 17:00 to 17:30	Monday - Friday	Abingdon to Wantage, via Culham, Sutton Courtenay and Milton
		Hourly 07:45 to 19:35	Saturday	
		No service	Sunday	
45	Thames Travel	Every 30 mins (07:30 to 08:52 16:20 to 17:45) midday service on Fridays only.	Monday - Friday	Abingdon to Culham Science Centre
		No service	Saturday/Sunday	

Table 4: Bus routes Didcot – Appleford – Culham

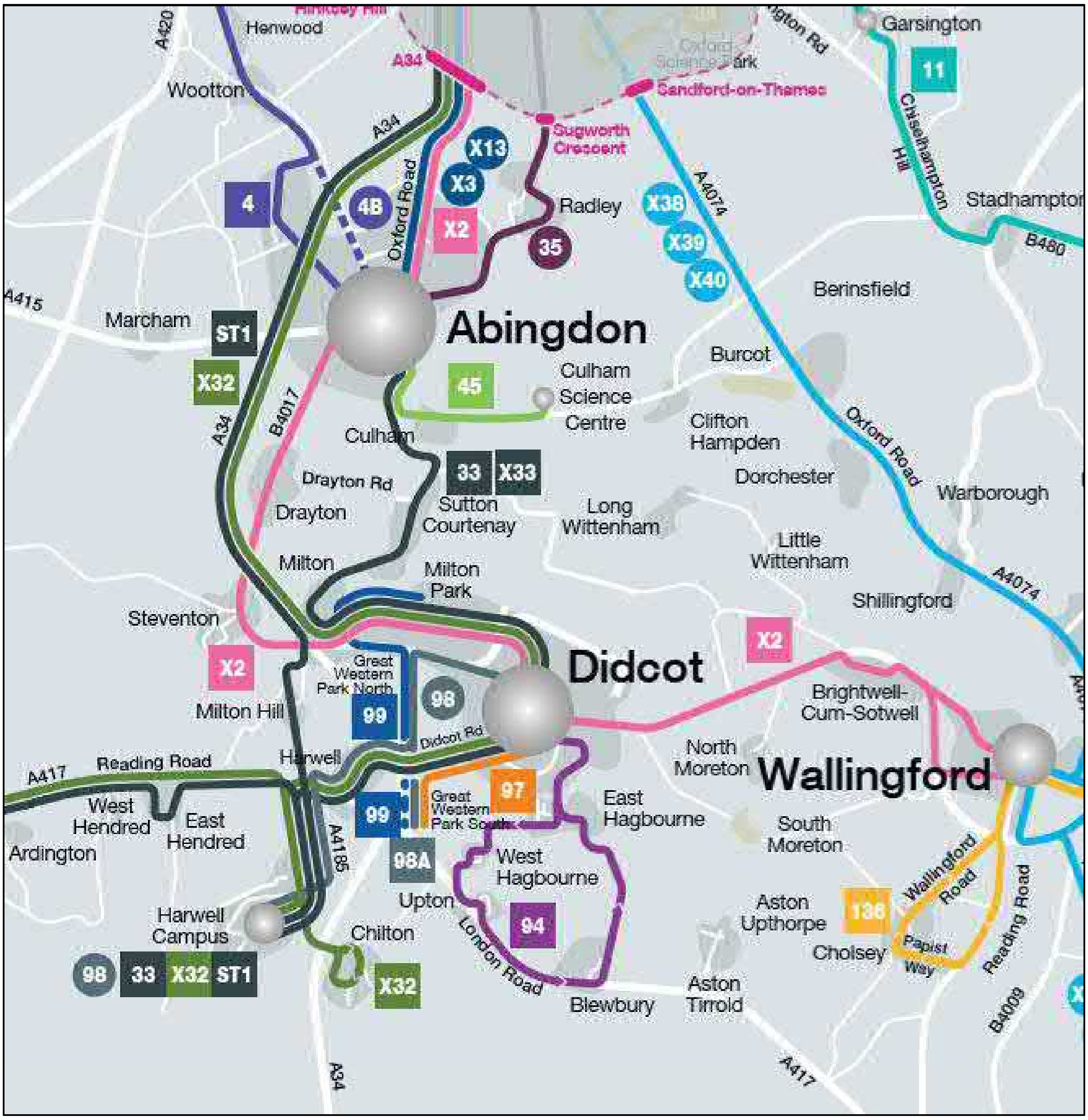

Figure 6 Extract of South Oxfordshire Zone network map

2.3.2 Train service

The proposed Didcot to Culham River Crossing runs parallel to the Oxford to Didcot Railway line, along part of the route also known as “The Oxford Canal Line”.

Train services along this route are operated by Great Western Rail, with services directly into Reading, Didcot Parkway, Oxford and Banbury. With an interchange at either Didcot Parkway or Reading, Great Western Rail train services can also be into London Paddington, Cardiff Central, Weston Super Mare, Cheltenham Spa, Swansea, Taunton, Bristol Temple Meads and Carmarthen as shown in the network map included in Figure 7.

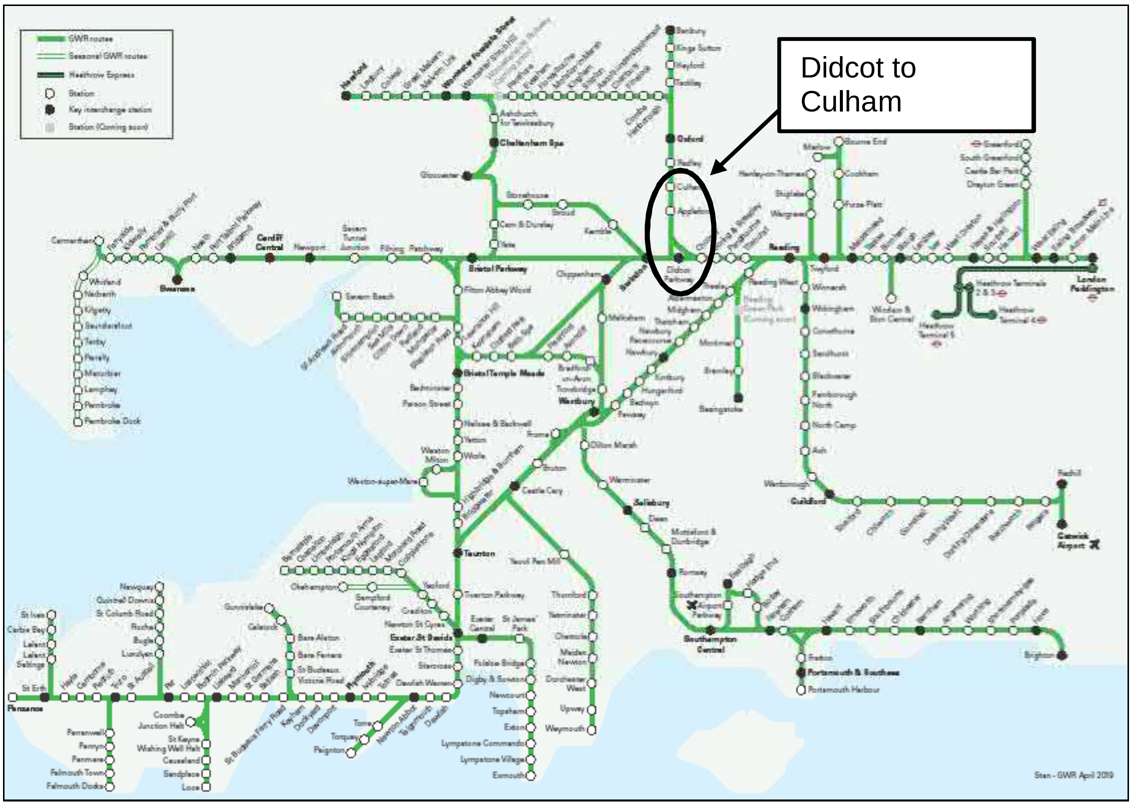

Figure 7: Great Western Railway Network Map

There are two railway stations located within the study extents: Appleford and Culham.

Culham Railway Station

Culham railway station is located approximately 0.5km to the west of Culham Science Centre and 2.4km to the east of Culham village. The station is unattended with limited facilities. The station car park has 8 spaces. Sheltered cycle parking with 26 storage spaces is also available.

Train services which currently serve Culham are infrequent, and summarised as follows based on GWR published timetables:

- Monday to Friday:
  - 2 early morning, and 1 late morning service
  - Half-hourly services during peak times between 07:30 and 09:00, and between 17:00 and 18:20
  - 1 midday and 1 mid-afternoon services
  - 2 evening services (19:30 – 21:00).

- Saturday – 2-hourly service between 07:30 and 10:00; 13:30 and 16:00; 19:30 – 22:00, with 2 early morning services.
- Sunday – No services.

Appleford Railway Station

Appleford railway station is located to the west of the Appleford village. The station is unattended with limited facilities, no car park or cycle storage facilities.

Train services which currently serve Appleford are infrequent, and summarised as follows based on GWR published timetables:

- Monday to Friday:
  - 3 early morning services
  - Half-hourly AM peak services between 07:30 and 09:00
  - 1 midday service
  - Half hourly service between 16:00 and 18:00
  - 2 evening services.
- Saturday – 2-hourly service between 09:00 and 21:00, with 2 early morning services.
- Sunday – No services.

Didcot Parkway Railway Station

Didcot Parkway Railway station is located approximately 1.35km to the south of the proposed new corridor and is a busy railway interchange station, connecting east-west services between London and Wales, with north-south services to Oxford and Banbury.

2.4 Key trip generators and local amenities

2.4.1 Key trip generators

The key trip generators in the vicinity of the proposed improvements include the following:

Local businesses and key places of interest

- Culham Railway Station
- Culham Science Centre
- Appleford Railway Station
- Southmead Industrial Estate, including Tesco Distribution Centre
- Trident Business Park
- RWE Didcot Power Station
- Hanson Ready-mixed Concrete, Sutton Courtenay
- FCC Environment, Sutton Courtenay – Waste transfer site
- Milton Park
- Didcot Parkway Railway Station

Residential areas within the study area

- Appleford Village
- North of Ladygrove Estate
- Foxhall Manor Park – Motor home park

Residential areas – outside of 1 km of study area

- Sutton Courtenay
- Culham Village

2.4.2 Future trip generators

Housing areas are planned for Great Western Park and Valley Park in south-east Didcot, Ladygrove North in north-east Didcot, north-east Wantage, and at other locations including Culham, Berinsfield and Dalton Barracks. This amounts to more than 22,000 houses planned for the local area. Major employment development is planned for within the two Enterprise Zones, Science Vale and Didcot Growth Accelerator, and elsewhere at Milton Park and Didcot Power Station, for Grove Airfield, Culham Science Centre and Harwell IBC. If these developments were allowed to progress without any improvements in the capacity of the transport networks, then the result would be likely to be unacceptable local congestion.

The Oxford Strategic Model (OSM) was developed using 2013 as the base conditions to assess the predicted traffic growth in the area. Model outputs suggest that in 2031, with all the planned housing development, there would be around a 25% traffic growth in the Didcot area in the morning and evening peaks, while in the inter-peak periods traffic growth could be 45%. The flows across the existing river crossing are also predicted to increase on Culham Bridge and Clifton Hampden Bridge by around 30% in the peak periods and around 40% in the inter-peak.

According to the Council planning website there are several proposed developments in the study area. These include the following:

- **Land to the north east of Didcot (P13/S0750/SCO, P15/S2902/O)**

  Proposed new and integrated neighbourhood to the northeast of Didcot of up to 1,880 homes, two new primary schools; a new secondary school; a new leisure/sports facility and sports pitches. Neighbourhood centre is also proposed to comprise of retail units, a mixed-use Public House/restaurant; a hotel; a new community hall; a residential Extra Care Housing facility; new areas of green infrastructure including amenity green space, allotments and children's play areas; and a supporting town-wide and site-specific associated infrastructure

- **Land at Culham Science Village Culham Oxfordshire (P17/S3719/SCO)**

  Proposed residential led mixed-use development at Culham Science Village.

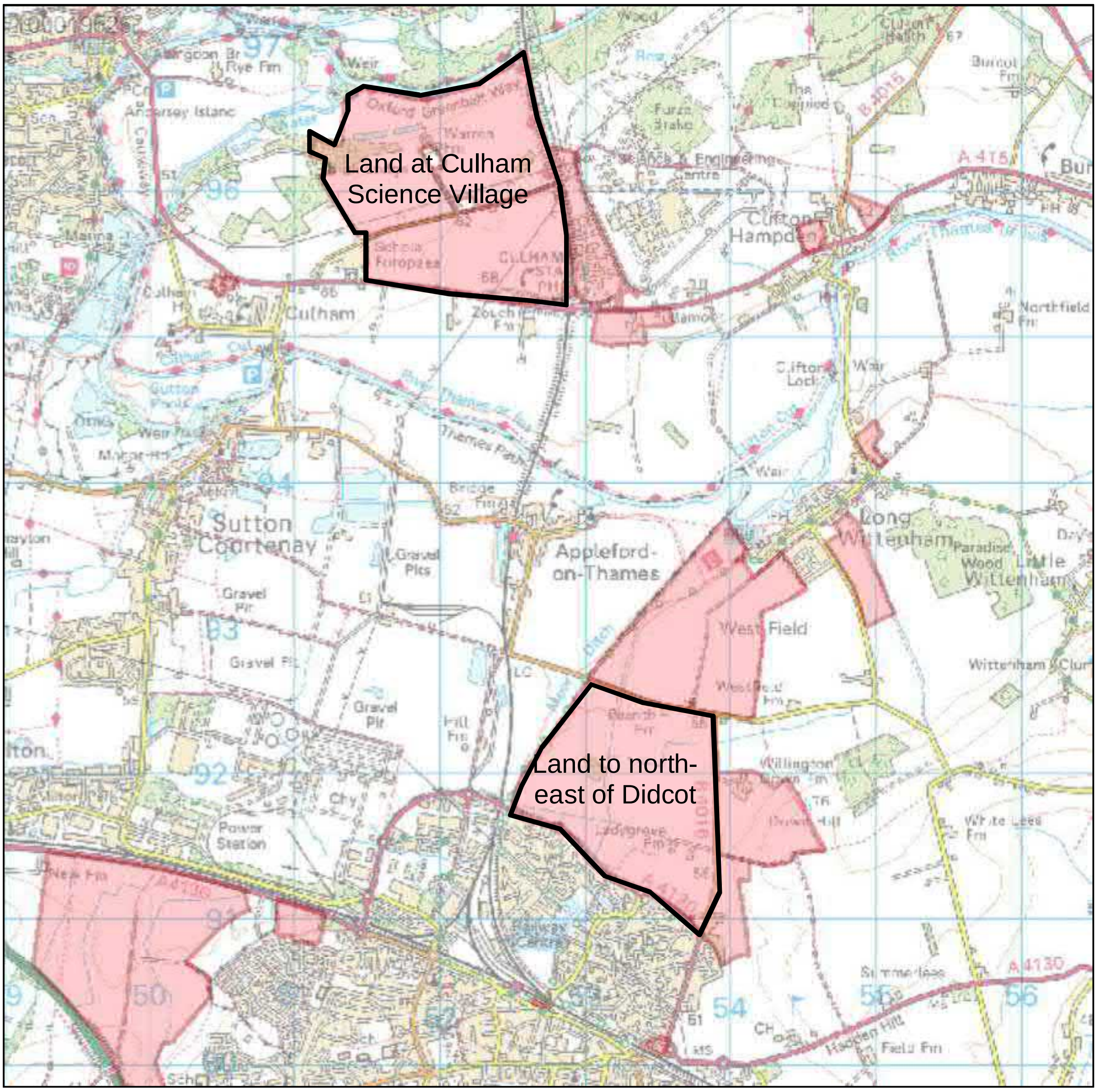

Figure 8 Oxfordshire County Council Planning Application Interactive Mapping

2.5 Site visit

A site visit was undertaken on the 10th November 2019, with Hein Pretorius (Highways Design Lead) and Karl Chan (Project Manager) between 09:00 and 15:00 during daylight. The site visit took the form of walking along the available pedestrian facilities along the proposed corridor at Appleford Level Crossing, Appleford Village and outside Culham Science Centre. The weather during the site visit was cold, with light showers.

The primary findings of the site visit were:

- **A4130 Ring Road** – Footways are provided on the south of the A4130 into Southmead Park. 1 pedestrian who appeared to be a worker in the industrial estate was seen walking on the footway, when passing by during the site visit.
- **A4130 Ring Road to Appleford Level Crossing/Appleford Sidings Access** – This route is signed on site as a public path from the A4130. A high volume of HGVs and refuse vehicles were seen along the route, making it appear an undesirable route for pedestrians, cyclist or equestrians.

- **Appleford Level Crossing –** The level crossing is operated by push button. To the east of the level crossing, surfacing is poor, and ponding was visible, as shown in Figure 9 . White lining has been provided on approach to the level crossing with vehicle stop lines and pedestrians waiting areas. To the west of the rail line, narrow footways are provided along Main Road towards Appleford Village, as shown in Figure 10. No NMUs were seen at the location during the site visit.

Figure 9 Appleford Level Crossing – west of railway line

Figure 10 Main Road, east of Appleford Level Crossing

- **Appleford Railway Station** – On the B4016, the footway currently terminates to the east of Appleford railway station. There is a pinch-point on approach to the station access, with the fencing protruding out from the access as shown in Figure 11. The access to the platform to the west of the railway line is via the main carriageway, with no dedicated pedestrian facilities. Warning signage and slow markings are provided to warn oncoming vehicles of pedestrians in the road or crossing, as shown in Figure 12.

Figure 11 Appleford Station, eastern access

Figure 12 Main Road, approach to Appleford Station

From the western access to the station platform, visibility is poor to the right with approaching vehicles coming around a bend as shown in Figure 14. There are no footways on either side of this entry along the B4015 as shown in Figure 13.

Figure 13 B4016, east of Appleford Station

Figure 14 Appleford Station, western access – view to east

- **Thames Path –** At Culham Village, the access to the Thames Path is signed and gated. To the west of Tollgate Road to Culham Lock, the route is surfaced, as shown in Figure 15. The route is well-used, and during the site visit a large group of over 10 people were seen walking the route. To the east towards Appleford and the proposed site of the scheme, the path is formed of a worn track as shown in Figure 16, and is similar throughout its length across the study area.

Figure 15 Thames Path, towards Culham Lock

Figure 16 Thames Path, east of Tollgate Road, Culham

- **A415 Abingdon Road, Culham –** Shared cycle-pedestrian footways are provided on the northern side of the carriageway along the length of Abingdon Road from Culham Village to Culham Science Centre. To the west of the private farm access, there is no physical separation between the footway and the carriageway as shown in Figure 17. White lining is provided along the footway to delineate its edge, however was observed to have worn away.

  To the east of the farm access, a grass verge segregation strip is provided between the footway and carriageway as shown in Figure 18 which is more suitable for the high-speed road with operating with a national speed limit. One cyclist was seen using the facilities during the site observations.

Figure 17 A415 Abingdon Road, shared use footways

Figure 18 A415 Abingdon Road, west of farm access

- **Culham Railway Station** – Pedestrian and cyclist provision on the western approach to Culham railway station are greater than that on the western approach from Culham Village, which is likely to suit demand. On the eastern approach, the cyclists are signed down the local road to the Railway Inn where there is limited cycle parking within the station. All sheltered cycle storage is on the eastern platform side.

  From the eastern approach shared cycle-pedestrian footways are provided from Culham Science Centre, along Station Road and terminating at the station entrance as shown in Figure 20.

Figure 19 Cycle parking at Culham Railway Station

Figure 20 Culham Railway Station – eastern approach

An uncontrolled crossing is provided near the station car park entrance on Station Road, as shown in Figure 22. On-street parking was observed adjacent to the crossing shown in Figure 21, limiting visibility of oncoming vehicles, however traffic volumes and speeds are low so is not considered a safety concern. A segregation strip is provided on the footways, delineated by white lining where there is no verge. At the time of the site visit, works were being carried out at the junction of A415 Abingdon Road and Station Road.

Figure 21 Station Road - Shared cycle-pedestrian footways

Figure 22 Station Road – Uncontrolled crossing at station car park entrance

2.6 Existing walking, cycling & horse-riding network facilities

2.6.1 Local facilities

The existing facilities for non-motorised users along the proposed highways corridor include the following:

- A4130 / Collett junction – existing narrow footways on the southern side of the carriageway for access into Southmead industrial park.
- A4130 Ring Road, Didcot to Appleford Level Crossing (See B-1 on Figure 23) – signed bridleway comprises of a single unmarked road for access to a local farm, Sutton Courtenay Sidings and the site of a waste recycling company. There are no dedicated facilities along this route, however traffic volumes are low. There is no street lighting.
- B4016 Main Road, Appleford – footways east of the over-bridge across the railway line at Appleford Station to Appleford village. No pedestrian, cyclist or equestrian facilities are provided across the railway bridge or west of the railway line.
- A415 Abingdon Road – shared cycle-pedestrian footways are currently provided on the northern side of the carriageway between Cullham Village and Culham Science Centre, with connection to entry of Culham railway station car park.

2.6.2 Local routes and strategic networks

The following pedestrian, cyclist and equestrian routes within the study extents have been identified, which are of relevance to the Assessment and are also shown on Figure 23.

- **B-1**: North-south bridleway between the A4130 Ring Road at Didcot to the Appleford Level Crossing.
- **B-2:** East-west bridleway between Appleford and Long Witthenham. This route is rural and runs predominantly along the border fence lines of fields through the area. The route joins to the surfaced and signed National Cycle Route (NCR) 5 outside of Long Wittenham.
- **RB-1**: East-west restricted byway between Appleford Level Crossing and local farm, for use by NMUs including horse-riders only. This route is surfaced, wide and in a rural location, with low traffic volumes. No street lighting.
- **RB-2**: East-west restricted byway along Thames Lane and promoted as part of the Green Belt Way.
- **FP-1**: North-south cycle-footway between Ladygrove Estate towards Long Wittenham. Surfaced and signed route, with access stairs from the A4130 and level, gated access at the B4016 to the east of Appleford.
- **FP-2**: East-west footpath between Appleford Station and Sutton Courtenay. Facilities provided along this route are unclear, with narrow highways verges and no footways provided on the B4016 to the east of Appleford railway station
- **FP-3**: Thames Path – Signed and well-advertised National Trail following the River Thames. At this study location the route comprises of a narrow-worn track running through fields. There are no dedicated facilities or street lighting and will be used for leisure purposes.
- Based on the British Horse Society Equestrian Access Mapping, there are no official rides or trails within the study area.

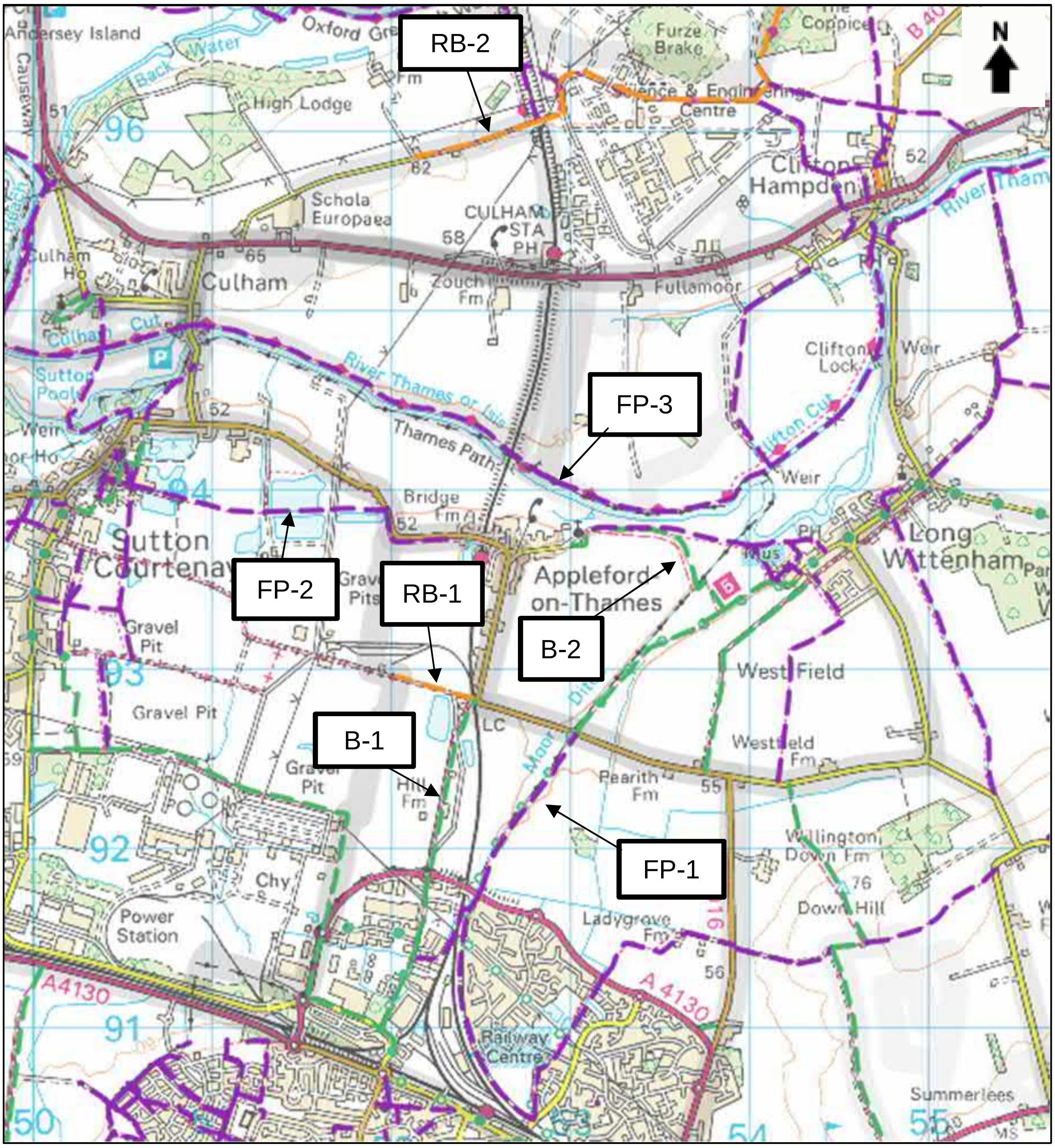

Figure 23 Extract of OCC Public Right of Way Map

2.6.3 National Cycle Route

National Cycle Network (NCN) Route 5 is the closest regional route to the proposed scheme and is a long-distance route which connects Reading and Holyhead via Oxford, Stratford-upon-Avon, Bromsgrove, Birmingham, Stoke-on-Trent, Chester, Colwyn Bay and Bangor. From Didcot, the NCR5 branches in two directions from Cow Lane located to the west of Didcot Railway Station:

- One of the routes heads north-west through Ladygrove Estate and crosses the A4130 just west of the railway line. The route then continues in a north-easterly direction alongside Moor Ditch towards Long Whittenham.
- The other route, heads north-west through Southmead Industrial Estate on road and continues along a segregated track to Sutton, Sutton Courtenay and on to Abingdon.

The NCN 5 also links with NCN 544 on Cow Lane and continues to Wantage.

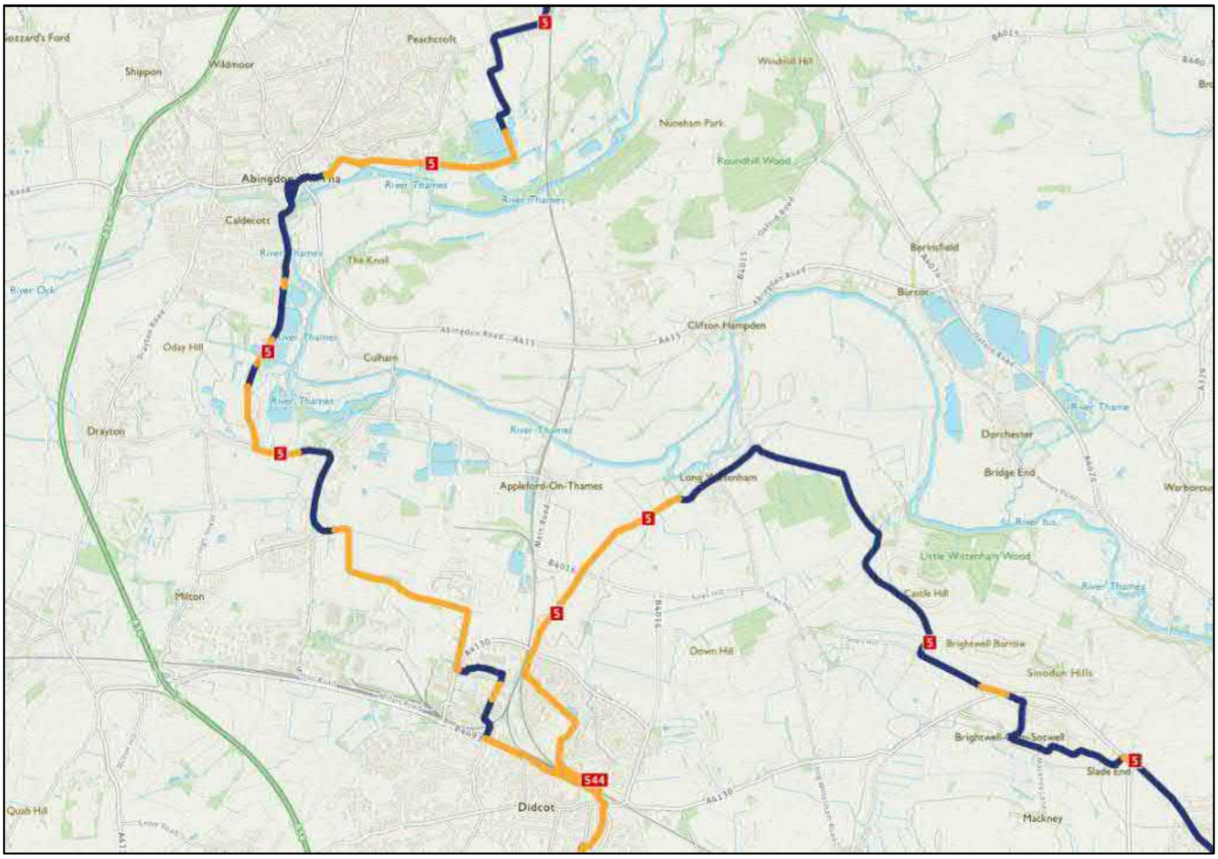

Figure 24: Extract of Sustrans National Cycle Network Map

2.7 Walking, cycling & horse-riding survey data

AECOM commissioned Traffic Data Centre (TDC) to undertake a 7-day, 24-hour video survey in November 2019 to collect data on walking, cycling and horse-riding movements at four locations within the scheme extents. This data was collected in order to provide a quantitative understanding of walking, cycling and horse-riding demand and understand the use of junctions in the scheme.

The surveys were undertaken Monday 11th to Sunday 17th November 2019. The surveys were undertaken using video survey to cover walking, cycling and horse-riding movements through the junctions and surrounding area. The count locations are shown in Table 5 below. A map of these locations is included in **Appendix C**.

Survey ID	Location	Survey Type	Grid Reference	
RIV-01	Culham Railway Station Entrance	Classified NMU OD count	E: 452766	N: 195252
RIV-02	Station Road and Abingdon Road Junction	Classified NMU OD count	E: 452685	N: 195206
RIV-03	Abingdon Road, Culham	ATC speed survey		
RIV-04	Thames Path at Tollgate Road, Culham	Classified NMU OD count	E: 450874	N: 194916
RIV-05	B4016 Road, Appleford	ATC speed survey		
RIV-06	Appleford Railway Station	Classified NMU OD count	E: 452528	N: 193726

Survey ID	Location	Survey Type	Grid Reference	
RIV-07	Appleford Level Crossing	Classified NMU OD count	E: 452394	N: 191864
RIV-08	A4130 and Collett Road junction	Classified NMU OD count	E:452208	N: 191864

Table 5: Locations for WCHAR surveys

2.7.1 ATC speed surveys

Table 6 provides a summary of the average and 85%ile speeds recorded on the B4016, Appleford and the A415 Abingdon Road. Surveys suggest that typical vehicles are travelling below the speed limit on both roads, with an average of speed of 48mph on Abingdon Road in Culham and 38mph on the B4016 in Appleford.

Survey ID	Location	Direction	Speed limit (mph)	Average speed (mph)	85%ile speed (mph)
RIV-03	Abingdon Road, Culham	Eastbound	60mph	47.8	54.7
		Westbound	60mph	48.6	55.2
RIV-05	B4016 Road, Appleford	Eastbound	60mph	37.9	43.5
		Westbound	60mph	38.3	43.6

Table 6: Surveyed average and 85%ile speeds

Table 7 provides a summary of the total number of vehicles recorded along Abingdon Road and the B4016 during the survey period, and their classification. Surveys suggests that the majority of vehicles currently using the two roads are private cars, comprising of 82- 83% of total traffic recorded.

Survey ID	Location	Total 2-way weekly traffic	Vehicle classification (%)					
			Cycles	Motorcycle	Car	LGV	HGV	Buses
RIV-03	Abingdon Road, Culham	71389	0.11	0.86	82.77	15.29	0.57	0.40
RIV-05	B4016 Road, Appleford	25306	0.73	0.52	81.80	16.54	0.26	0.14

Table 7 Surveyed 2-way traffic flow and vehicle classification

2.7.2 NMU surveys

The total pedestrian, cyclist and equestrian movements observed over the survey periods have been marked on a location plan for each site. The full survey counts are provided in **Appendix D**.

No equestrians or wheelchair users were observed at any of the survey locations, over the duration of the survey.

RIV-01: Culham Railway Station Entrance

The number of NMUs recorded at location are low, with an average of 41 NMU trips on a weekday and 7 during a weekend day. There is little demand for this route providing access only to the railway station with infrequent services and the local pub.

The total NMU movements observed over the survey period is shown in Figure 24.

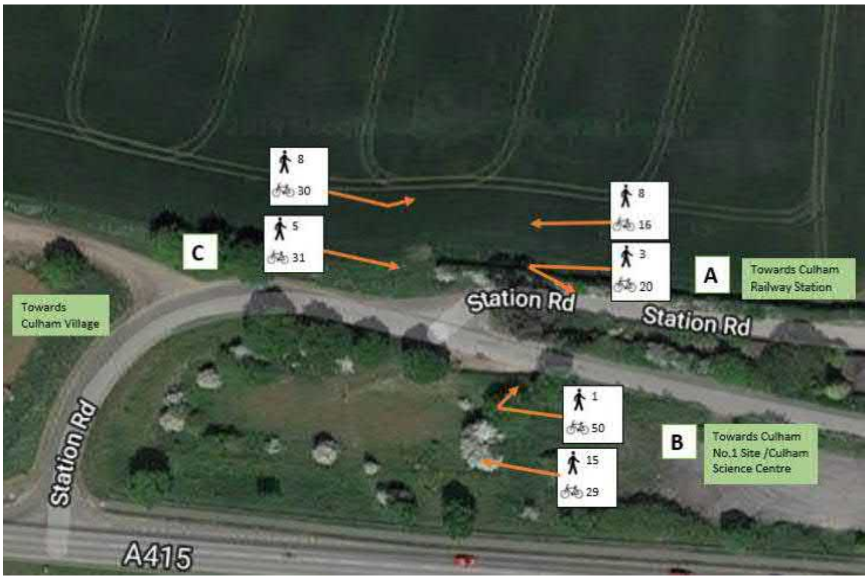

Figure 25 RIV-01: Culham Railway Station Entrance – Total NMUs observed (7-day survey period)

RIV-02: Station Road and Abingdon Road Junction

The majority of the NMU trips recorded at this location (947 cycle trips) involved cyclists travelling straight along the A415 Abingdon Road, of which 92% were using the existing shared use footways.

The trips are made mainly by commuters, with the daily average trips on the weekend (52 trips) much lower than on a weekday (201 trips). The greatest hourly number of trips record on weekdays between 8 and 9am, and between 4:30 and 5:30pm.

The total NMU movements observed over the survey period is shown in Figure 25.

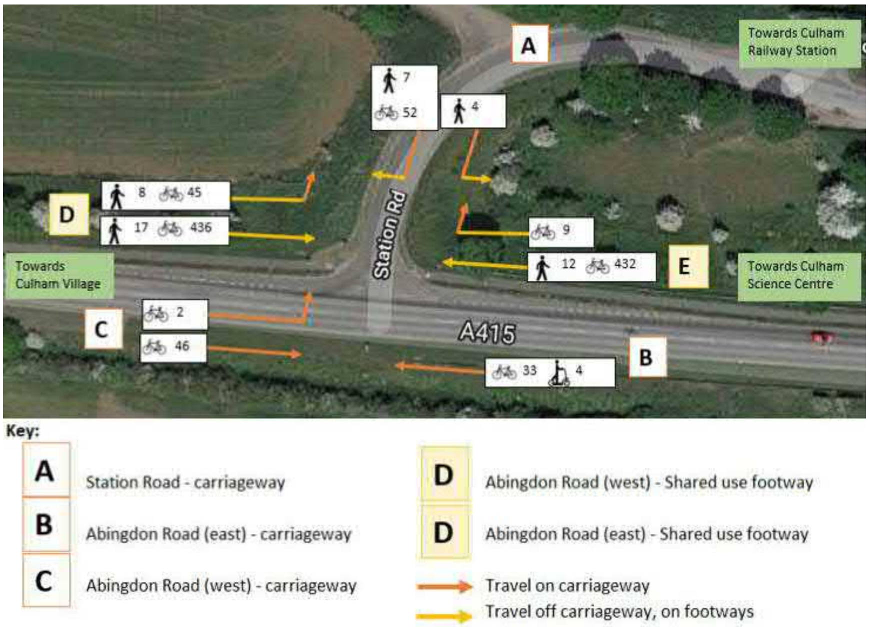

Figure 26 RIV-02 Station Road and Abingdon Road Junction – Total NMUs observed (7-day survey)

RIV-04: Thames Path at Tollgate Road, Culham

The number of NMUs recorded at location during the weekend were greater than on weekdays, an average of 152 NMU trips during the weekend days in comparison to an average of 35 on a weekday showing that this route is used predominately for leisure trips.

The total NMU movements observed over the survey period is shown in Figure 27.

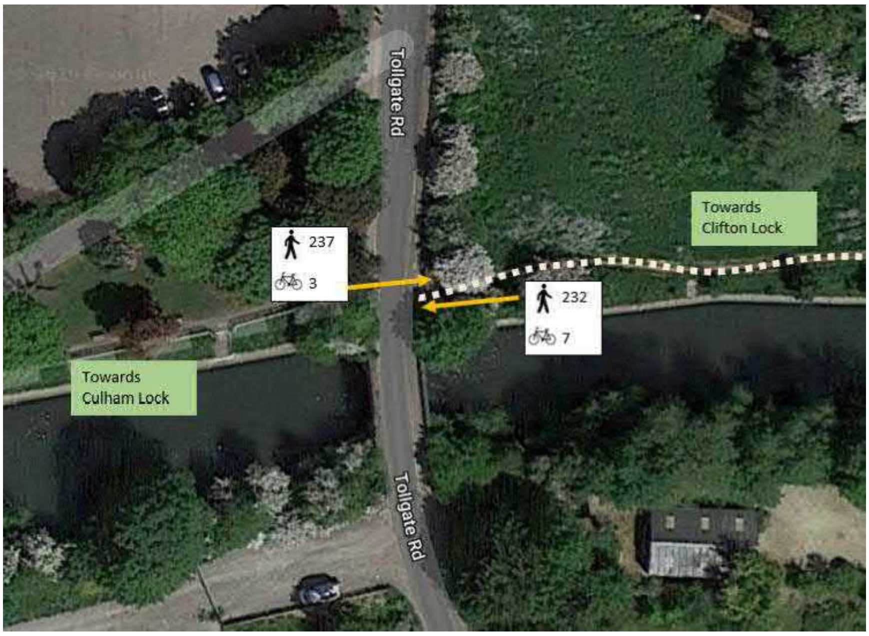

Figure 27 RIV-04 Thames Path at Tollgate Road – Total NMUs observed (7-day survey period)

RIV-06: Appleford Railway Station

56% of all NMU trips observed at this location were by cyclists. Of those trips, 304 involved cyclists travelling straight across the railway bridge along the B4016. Both platforms at Appleford station are used, with pedestrians observed to walk across the railway bridge in the carriageway, as no footways are provided at this location.

On average, a greater number of NMU trips at this location take place during a weekend day with an average of 111 trips compared to an average of 75 on a weekday.

The total NMU movements observed over the survey period is shown in Figure 28.

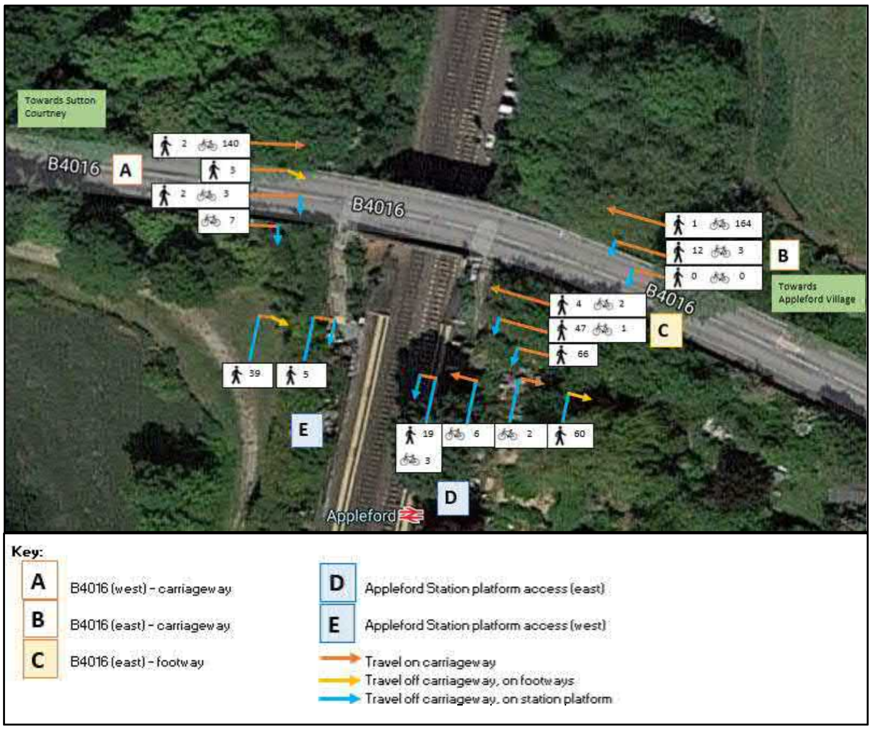

Figure 28 RIV-06 Appleford Railway Station – Total NMUs observed (7-day survey period)

RIV-07: Appleford Level Crossing

There is some observed usage of the Appleford Level crossing, although number of trips across this were relatively low.

The majority of the trips at this location were by cyclists travelling along the B4016 Main Road, without passing the level crossing.

On average the total daily NMUs were greater during the weekend with an average of 115 trips in comparison to 41 on the weekdays, suggesting that most of the trips are for leisure.

The total NMU movements observed over the survey period is shown in Figure 28.

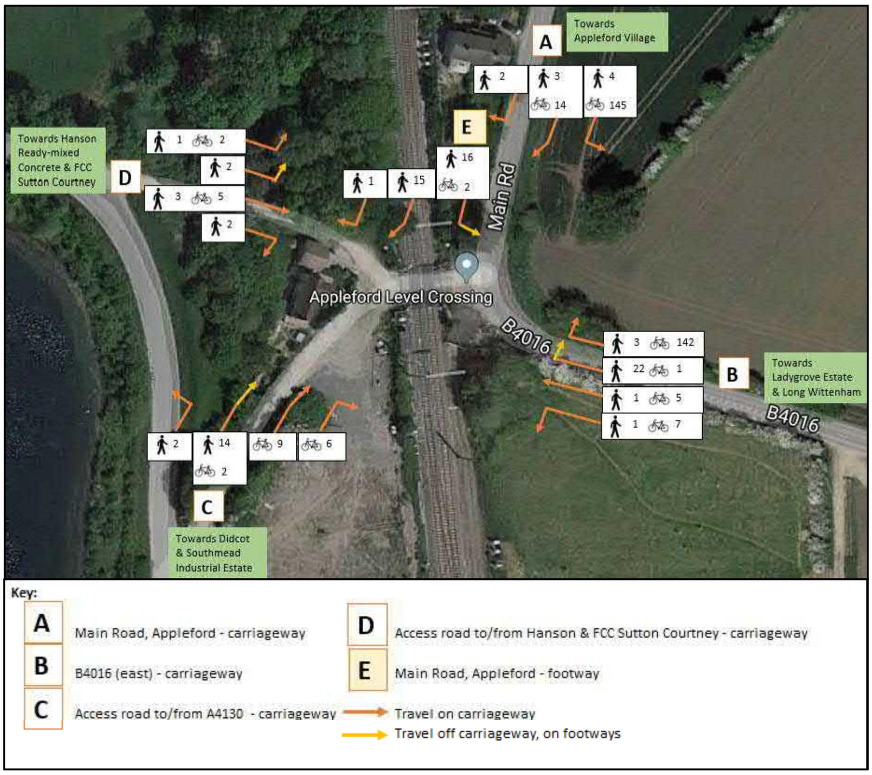

Figure 29 RIV-07 Appleford Level Crossing – Total NMUs observed (7-day survey period)

RIV-08: A4130 and Collett junction

Daily totals of NMUs observed at this junction were relatively even across the full survey week, with marginally higher numbers recorded on a weekend day with an average of 92 NMU trips in comparison to 64 on a weekday. On a weekday, hourly NMUs trips peaked at 7-8am suggesting some of these trips may be related to travel to work although are few.

Cyclists travelling straight across the junction along A4130 in both directions were seen travelling along the carriageway, whereas only a few were seen on the footway. On the eastern side of the junction, the footways are well-used by cyclists travelling between Collett and the A4130 (east) towards Ladygrove Estate. The total NMU movements observed over the survey period is shown in Figure 30.

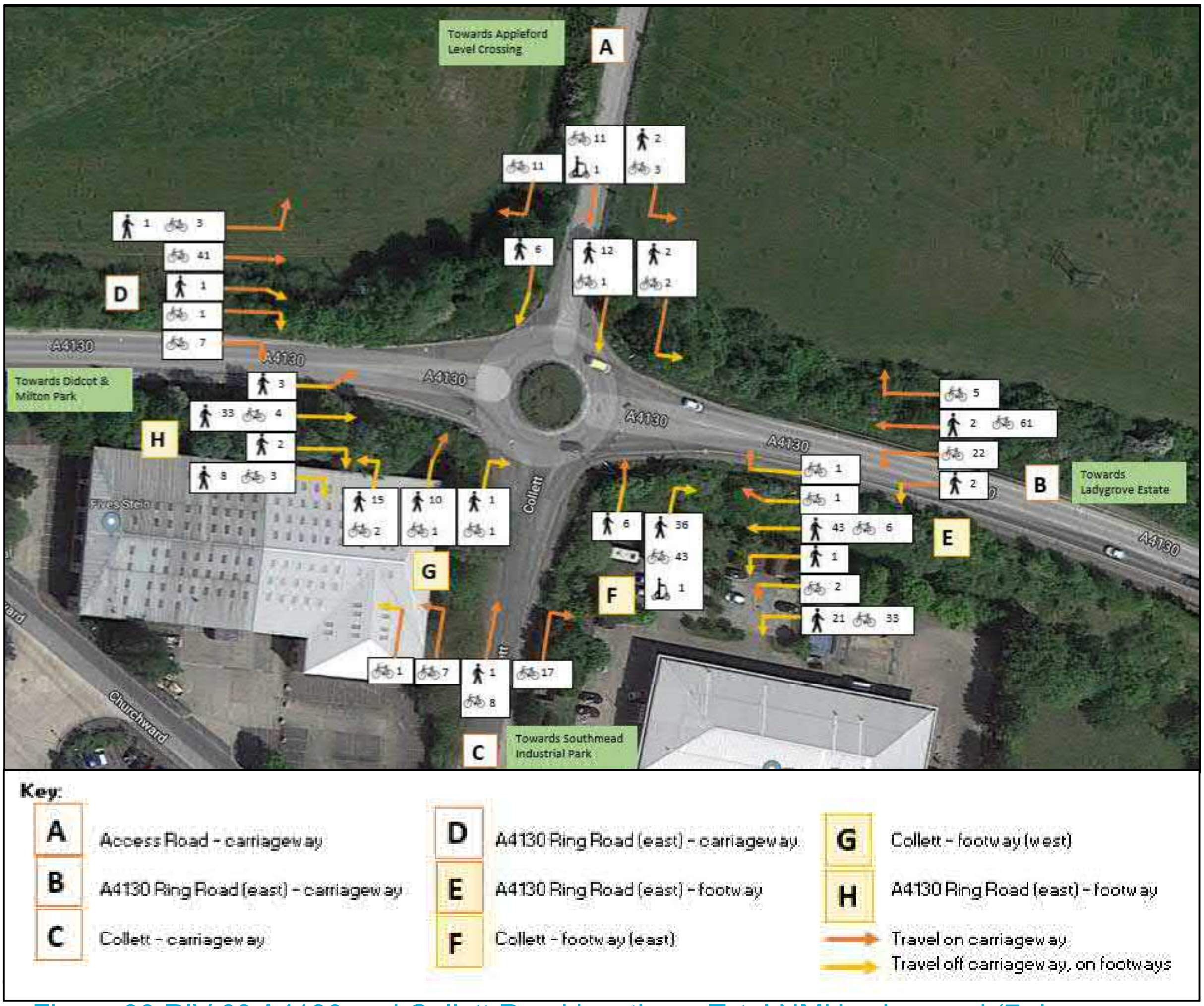

Figure 30 RIV-08 A4130 and Collett Road junction – Total NMUs observed (7-day survey period)

2.8 Consultation with key stakeholders and local user groups

In order to be able to incorporate, where appropriate, the comments and views of local people on the preferred alignments into the next stage of the scheme design process of the HIF1 package of schemes an online public consultation was undertaken. This commenced on 20th March and finished on 30th April 2020. Full details of the consultation are available online: www.oxfordshire.gov.uk/didcotupdate. The consultation plans shared for the Didcot to Culham River Crossing scheme are included in Appendix F. It is noted that due to the timing of the consultation and aim to provide stakeholders with the most-up to date designs, this component of the Assessment has been carried out based on updated AECOM feasibility design drawings (rev P01).

As a result of Government restrictions on social distancing in response to the COVID-19 pandemic, it was not possible to hold the five public exhibitions that were scheduled for the last two weeks of March 2020. Due to the very tight timescales imposed by Government with respect to the terms of the funding, it was necessary to continue with an online consultation in order to avoid delay to the project programme.

However, to address this OCC undertook additional measures to ensure that as many people as possible were aware of the consultation and were able to access the information. This included sending letters to approximately 22,000 residences in the area, using an innovative virtual exhibition room with live chat function, promoting telephone numbers of officers available to answer questions, and sending printed versions of the materials to those without internet access. This was all in addition to the standard means of engagement (newspaper adverts, press releases, electronic mailouts, OCC website etc).

Additionally, targeted questionnaires were sent out to local government departments and representatives of local user groups, seeking views on walking, cycling, and horse-riding elements of the infrastructure proposals. It should be noted that this scheme was consulted alongside the three other Didcot HIF highways schemes. Later in the year, it is intended that stakeholder workshops will be held to invite further input to the design of the walking, cycling, and horse-riding provision in all four proposed schemes.

Overall, 24 questionnaires were sent out to a list of identified key stakeholders and user groups and included representatives from the following:

- OCC Active and Healthy Travel
- OCC Public Rights of Way
- Didcot Garden Town Project Manager
- Harwell Campus Bicycle Users Group (HarBUG)
- Sustrans Thames Valley
- Cyclox / Cycling UK
- Culham Science Centre Bicycle Users Group (CulBUG)
- Milton Park Bike Users' Group (MilBUG)
- Oxfordshire Cycling Network
- Ramblers Association
- Ramblers Association Oxon (& Oxford Fieldpaths Society)
- British Horse Society
- Oxfordshire Association for the Blind
- Oxfordshire Unlimited
- Guide Dogs
- Oxfordshire Transport & Access Group (OXTRAG)

In total, seven replies were received. In general, all respondees supported walking and cycling improvements, even if this means less space for other road traffic.

Table 8 provides a summary of the stakeholder responses relating to the proposed Didcot to Culham River Crossing received during the consultation. A copy of the questionnaire and the full responses received are included in **Appendix E.**

Consultee	Summary of Response
OCC Public Health	• OCC Public Health agreed that the proposed scheme would encourage walking and cycling. However, it is suggested that suitable complementary measures to improve pedestrian and cycle conditions are needed in decongested area to ensure that the reduction in congestion by introducing the new highways will not lead to increase in demand for private vehicle use. • Strong support was expressed for the full segregation and setting back of walking and cycling facilities.

Consultee	Summary of Response
	• Concern was expressed relating to the proposed tangential roundabout design which may result in high vehicle speeds at the roundabout and safety concerns for pedestrians using the uncontrolled crossings on the roundabout. • Suggestion was made to consider a radial roundabout layout, and further measures to reduce traffic speeds and improve the pedestrian environment at the roundabouts including the consideration of green infrastructure (planting).
OCC Public Rights of Way	• OCC PRoW were positive about the proposals but noted that the improvements for pedestrians are relatively close to traffic and has not included creation of alternative traffic free routes well away from carriageways and within local settlements. • It was also noted that complementary cycle routes within settlements must be provided to equal standard and traffic free where possible to encourage less confident cyclists to use their bikes. • OCC PRoW made the following suggestions: – Provide a cycle-only corridor for cyclists instead of shared use facilities to make the cycle-commuting faster and safe, as pedestrian use is likely to be low given the length of the corridor. – Install a barrier or sign to prevent unlawful cycle access to the River Thames National Trail. – Further consideration for equestrian provision and onwards connections, by discussion with local and national representative of the British Horse Society and better understanding of their needs. – Formal consultation to be carried out with the statutory Oxfordshire Countryside Access Forum.
Harwell Campus Bicycle Users Group (HarBUG)	• HarBUG were positive about the improvements and agreed in part that they would encourage walking and cycling however noted that pedestrian facilities along the route would only be used by people for short distance as a means to get to places but it would generally be an unpleasant environment and unlikely used for leisure. • It was noted that cycling will be encouraged by the proposals, only if direct and convenient connections to existing and new Didcot housing developments are provided and that all these routes are integrated into the Science Vale Cycling Network. • Concern was raised for how the segregated cycle path along the route will be access from Didcot, Ladygrove and the new Didcot North East development, as there is currently only a pedestrian path from the Northern Perimeter Road and Ladygrove Bridge, and also the cycle ramp on the railway footbridge is unusable due to recent railways works. • HarBUG made the following suggestions to improve the provision for walkers, cyclists and equestrians: – Install a properly designed Bike Wheeling Ramp on to the railway footbridge between Ladygrove Estate to Southmead Industrial Estate to enable cycle access across the railway and to the new corridor. – Construct a new shared use path from Moor Ditch Path (Sustrans route 5) junction with B4016 to Appleford Level Crossing. From the crossing, provide a ramp up to a new unsignalized crossing on the new carriageway and a ramp down on the other side to maintain the existing right of way.

Consultee	Summary of Response
	– Reconsideration of the design of the proposed crossings at the roundabouts, including the possibility of introducing raised parallel crossings, to improve safety of pedestrians and cyclists.
Milton Park Bike Users' Group (MilBUG)	• MilBUG were positive about the proposed walking and cycling improvements, however mentioned that cycle facilities must have good quality, safe and convenient onwards connections to places of local interest. • A number of suggestions were also raised: – Good segregation between footways and the carriageway to improve walking environment, including consideration for planting/landscaping – Raised parallel crossings or signalised crossings with sensor equipment on access roads to provide cycle priority at crossings – Improved connection to the northern perimeter road • Upgrade of connecting routes including across Ladygrove Bridge, at the Northern Perimeter Road, from the north of Milton Park to the new corridor and also towards Sutton Courtenay across Kelart's Field, and integration of all new routes into the Science Vale Network.
Cyclox	• In general, Cycling UK were welcoming of the walking and cycling improvements proposed as part of the scheme to encourage and allow people to walk and cycle more often, however they had some concerns on the proposals in general and whether the schemes were promoting private car usage rather than walking and cycling. • The following comments/concerns were raised on the proposals: – For safety and convenience, compact roundabouts as referred to in DMRB CD116 should be provided rather than "normal" style roundabouts. – Fully signalised or grade-separated crossing facilities should be provided based on demand and speeds along the new highways. – Staggered crossing should be avoided for convenience and conformity in use. – Pedestrian and cycling provision on the roundabout to the north of Southmead Industrial estate is incomplete, and active travel provision should be considered on all arms. • Cycling UK also queried the chosen alignment of the corridor and whether a connectivity study has been carried out to assess the options, as their benefits to cycling and walking.
Oxfordshire Cycling Network (OCN)	• OCN were positive about the improvements and agreed in part that they would encourage walking and cycling however noted that walking will likely be for 'function' rather than pleasure due to the distances involved and that the new highways will also likely increase the attractiveness of driving. • OCN supported the proposals and agreed that the specification of the route and crossings was good, however suggested that the following should be considered: – Proposals will increase traffic on the A415 - The existing quality of the A415 cycle path is not great and should be improved as part of the scheme. – Connections to Didcot Parkway, Ladygrove and NE Didcot need to be clear and good quality

Consultee	Summary of Response
	– Change of unsignalised crossings or Toucan crossings to parallel crossings where safe to do so. – Closure of Sutton bridge to motor traffic.
Oxfordshire Transport & Access Group (OXTRAG)	• OXTRAG welcomes the improvements for encourage people to walk and cycle more often. • Agree with the walking and cycling facilities proposed and are pleased that there will be an off-carriageway cycleway, however it was suggested that: – A cycleway or cycle lanes should also be provided along the A415 between this road and the junction with the proposed Clifton Hampden Bypass. – Depending on demand, provide a wider verge or footway and designate it as a bridleway.

Table 8 Summary of stakeholder responses to consultation

3. User opportunities

The opportunities highlighted below are deemed to be relevant to the highway scheme and should be considered by the design team leader throughout the progression of the highway scheme design in addition to any further opportunities that may arise through the ongoing development of the design phases.

It shall be noted that opportunities labelled “KS” have been identified through key stakeholder consultation carried out in April 2020 and have only been raised following the completion of the feasibility stage design due to the programme. Additional opportunities identified are to be reviewed by designers at the next stage of the design and to be included in the next stage WCHAR review.

3.1 General

Opportunity 1:

Provide an additional link to the proposed Science Vale Cycle Network, offering a more direct alternative to the current proposed route. Consistent style and approach to wayfinding signage proposed across this network shall be provided at connections to the proposed Didcot to Culham River Crossing corridor.

Opportunity 2:

Review Garden Line proposals for a new river crossing for the proposed cycle route and provide this as part of the proposed scheme. Upgrade cycle route from Ladygrove Estate at access to NCN 5 on the A4130, to provide new cycle connection to the new corridor.

Opportunity KS-1:

Consideration to be given to introduction of raised parallel crossings at junction where safe to do so, to give priority to pedestrians and cyclists.

3.2 Strategic opportunities

Opportunity 3:

Provide a missing connection to the facilities along Thames Path, providing a pedestrian/cycle route between Didcot/Culham to the Thames Path.

Opportunity 4:

Provide infrastructure along the corridor to support the Council’s ambition to provide a direct Didcot to Culham Science Centre bus service. Consideration to be given to providing/upgrading bus stop which may be served by a new service route (Appleford /Culham)

Opportunity 5:

Provide dedicated NMU facilities to the west of Appleford Station towards Sutton Courtenay, providing the missing footway link along a route. This route is currently a signed route along the highways verge but not accessible for all types of users.

3.3 Pedestrian specific opportunities

Opportunity 6:

Appleford railway station pedestrian access – Provide an extension of the footways on the B4016 at Appleford railway station across the railway bridge, connecting the existing footway to the east of the bridge and the western platform access to address the current missing footway link. Improvements of visibility of approaching vehicles and traffic calming measures shall also be considered to improve pedestrian accessibility at the location.

Opportunity KS-2:

Retain the existing public right of way at Appleford Level Crossing to land to the west of new highway, by considering provision of a new shared use path from Moor Ditch Path junction with the B4016 to Appleford Crossing, and access ramps and a new unsignalised crossing on the new carriageway.

Opportunity KS-3:

A4130 / Collett Roundabout – Introduction of pedestrian (and cyclist) facilities across all arms of the roundabout to improve accessibility and safety of pedestrians at the junction.

3.4 Cyclist specific opportunities

Opportunity 8:

Provision of additional cycle stands at Culham Science Centre and Culham Station, to further encourage cycling as a means to travel to work.

Opportunity 9:

Improve safety and accessibility to the NCR 5 on the B4016 to the east of Appleford Level Crossing. Consideration to be given to providing cycle crossing facilities and introducing traffic calming measures on approach.

Opportunity 10:

A4130/Milton Road/Basil Hill Road – Existing off-carriageway cycle facilities are provided between Milton Road and Basil Hill Road, however this junction has been identified as a cluster site due to the number of collisions reported over the 5-year study period involving vehicles failing to give way to cyclists negotiating the roundabout. Consideration shall be made to providing improvements at the junction to improve the attractiveness of the off-carriageway facilities to cyclists or improving warning and visibility of cyclists to approaching vehicles.

Opportunity KS-4:

Provide an improved and clearer connection from Ladygrove Estate towards Southmead Industrial Estate, including the consideration for installing a properly designed Bike Wheeling Ramp at the railway footbridge to enable cycle access across the railway.

Opportunity KS-5:

Prevention of unlawful cycle access to the River Thames Path by improved access treatment and signage.

Opportunity KS-6:

A415 Cycle Path – Improvement of the existing shared use cycle facilities along the A415 to meet demand.

Opportunity KS-7:

Upgrade of connecting routes to /from the new corridor including across Ladygrove Bridge, at the Northern Perimeter Road, from the north of Milton Park to the new corridor and also towards Sutton Cortney. Integration of all new routes into the Science Vale Network, with clear wayfinding signage.

3.5 Equestrian specific opportunities

Liaison with key stakeholders and local user groups has not identified any key equestrian desire lines or demand within the scheme study area and therefore no equestrian opportunities have been identified for consideration.

British Horse Society (BHS) have been included as part of the consultation, however, did not respond within the consultation period.

Opportunity KS-8:

To consult with BHS during the development of the design to ensure that equestrian demand is catered for, and future aspirations for equestrian routes have been considered as part of the design.

4. Walking, Cycling and Horse-Riding Assessment Team Statement

As Lead Assessor, I confirm that this Walking, Cycling and Horse-Riding Assessment Report has been compiled in accordance with DMRB GG 142 and thus contains the appropriate information for the wider design team. The Walking, Cycling and Horse-Riding Assessment was undertaken by the following Assessment and Review Team:

Walking, Cycling and Horse-Riding Lead Assessor

Name: Andy Blanchard — Signed:

Position: Associate Director — Date: 15/05/2020

Company: AECOM

Walking, Cycling and Horse-Riding Assessor

Name: Kin-Yun Lo — Signed:

Position: Senior Engineer — Date: 15/05/2020

Company: AECOM

As design team leader I confirm that the assessment has been undertaken at the appropriate stage of scheme development and that the wider design team has been involved in the process.

I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in GG 142.

Design Team Leader

Name: Hein Pretorius — Signed:

Position: Principal Engineer — Date: 15/05/2020

Company: AECOM

Appendix A – Feasibility design

(Note: This Assessment reviews the Atkins feasibility design which was the latest design provided at the time of the assessment in December 2019)

Didcot Garden Town HIF1 - Clifton Hampden Bypass

Walking, Cycling and Horse-Riding Assessment Report

Oxfordshire County Council

Project reference: Didcot Garden Town HIF1
Project number: 60606782

May 2020

Quality information

Prepared by	Checked by	Verified by	Approved by
			
Kin-Yun Lo Senior Engineer	Andy Blanchard Associate Director	Shaun Wilkinson Technical Director	Grant Paxton Principal Engineer

Revision History

Revision	Revision date	Details	Authorized	Name	Position
P01	18/12/2019	DRAFT	Y	Grant Paxton	Project Manager
P02	26/05/2020	FINAL	Y	Grant Paxton	Project Manager

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Executive summary

This report outlines the Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) prepared for Oxfordshire County Council for the proposed Clifton Hampden scheme. This scheme is one of four that comprise the HIF1 Didcot Garden Town infrastructure project. Whilst the process set out in the Design Manual for Roads and Bridges (DMRB) GG 142 document has generally been followed in preparing this WCHAR Report, as this scheme is not a trunk road some alterations have been made to reflect this, such as a reduced study area.

The aims of this study are to gain an understanding of all relevant existing facilities for pedestrians, cyclists and equestrians (the users) in the local area, to provide background user information that can be referred to throughout the design process and to identify opportunities for improvement for users.

The WCHAR process is divided into two phases:

- Assessment (this report): undertaken during the options or concept stage of a highway scheme to capture the existing conditions for pedestrians, cyclists and equestrians, and identify the opportunities for improvement for these modes.
- Review: shall be completed as an ongoing review during the various design stages of the highway scheme and shall record the design decisions relating to the provision of walking, cycling and horse-riding facilities.

The proposed Clifton Hampden Bypass will deliver a new link road connecting the A415 Abingdon Road at Culham Science Centre with the B4015 Oxford Road to the north of Clifton Hampden, with a short section of online upgrading on the northern section of the link towards the junction with the A4074 at the Golden Balls Roundabout.

This Assessment Report documents the relevant local and national relevant policies and strategies. Within the study area, there has been a total of 14 recorded collision in the five-year study period, of which 3 were serious and 11 were slight in severity. There are a number of local and regional bus services in the area, with bus stops located at the Culham Science Centre and the Golden Balls Roundabout. Culham Railway Station is just west of the scheme.

The key trip generators in the area include the Culham Science Centre, Europa School and the businesses within the Culham No.1 Site. Movement within the study area is dominated by the private car. This is self-reinforcing since the high level of vehicular traffic makes walking and cycling less attractive. Few pedestrians and cyclists were observed during the site visit and throughout the surveys conducted in November 2019, with the majority observed travelling between the Culham Science Centre entrance, the railway station and the areas to the north of the Science Centre.

A public information event covering the four HIF1 schemes was held throughout April 2020, and relevant WCHAR stakeholders were sent a targeted questionnaire to capture their views on the feasibility designs and needs of the local users. Their responses are summarised in this report.

Identified user opportunities as part of the assessment included:

- Provision of dedicated, safe and direct cycle and pedestrian facilities along the proposed new bypass with links to existing cycle routes, Public Rights of Way within the scheme extents.
- Improvements to access and wayfinding signage to the Oxford Greenbelt Way and key routes/areas of interest.
- Improvements and upgrade of existing cycle facilities along the A415.

1. Background and highways scheme description

1.1 Background

The proposed Clifton Hampden Bypass scheme is one of the four major road schemes identified in the Access to Science Vale option assessment report (OAR), which were developed by a working group of Council and district officers.

The scheme will have a significant impact on the highways network in the area and therefore Oxfordshire County Council (OCC) have requested that the GG 142 Walking, Cycling & Horse-Riding Assessment and Review is completed to inform the scheme design.

In accordance with GG 142, the scale of the scheme has been assessed (by the Lead Assessor) and is considered to qualify as a 'large' scheme for the purposes of this assessment, by virtue of the extent of the proposed improvements. The scheme will therefore be subject to a Walking, Cycling & Horse-Riding Assessment (this document) during the preliminary design stage of the proposed highway scheme. This will then be followed by Walking, Cycling & Horse-Riding Reviews at the detailed design stage.

1.2 Proposed highway scheme

The Clifton Hampden Bypass will lie in the southwest-northeast direction, linking the A415 Abingdon Road, at Culham Science Centre with the B4015 Oxford Road, just north of Clifton Hampden. The site location plan is shown in Figure 1.

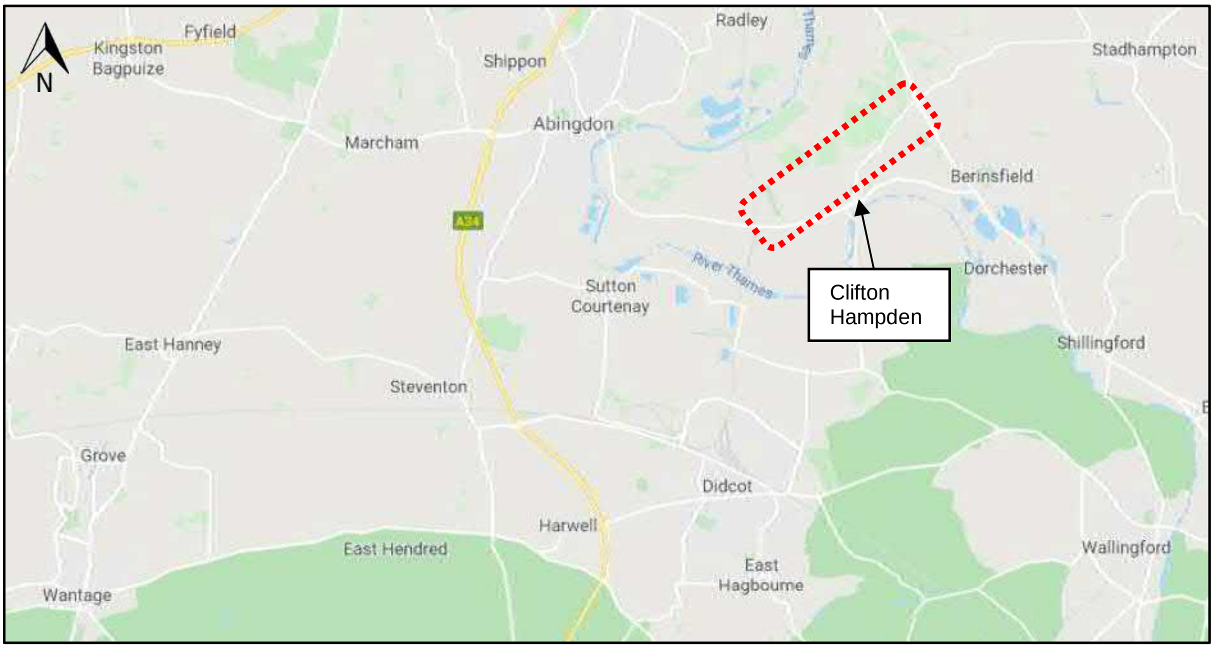


Figure 1: Site Location Plan[1]

The Clifton Hampden Bypass (the feasibility design is provided in Appendix A) is to provide a new link road connecting the A415 Abingdon Road at Culham Science Centre with the current B4015 Oxford Road to the north of Clifton Hampden, with online upgrading of the northern section of the link towards the junction with the A4074 at the Golden Balls Roundabout. At the southern end of the bypass, this corridor will link with the proposed Didcot to Culham River

[1] *"Google Map™ and Google Streetview™ have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google Inc."*

Crossing via a new junction on the A415 to the west of Culham Railway Station. This will also link to the proposed Science Bridge and the A4130 Widening towards Milton Interchange. It shall be noted that this Assessment, with the exception of the stakeholder consultation covered in section 2.8, has been carried out based on the feasibility design (drawing no. 5189452-ATK-DRG-HW-0006 to 0008 included in Appendix A) developed by Atkins in October 2019, and provided by OCC.

The main objective of the new corridor is to improve accessibility and provide congestion relief on the existing road network by providing an upgraded and more direct route between Culham to Oxford, via the A4074, and bypassing Clifton Hampden. The proposed new highways will also provide the required highways infrastructure to support the proposed employment and housing growth in Culham and the surrounding Science Vale area.

The scheme objectives include improving conditions for walking, cycling and horse-riding, as there are limited facilities in the area. This is likely to include improved facilities between Culham railway station and Culham Science Centre with new footways and crossings at the junction; a shared cycle-pedestrian footway along the new bypass link; and new footway along Oxford Road. The existing footpath connecting Clifton Hampden with Thame Lane and the farmland to the north of Culham Science Centre will be modified but retained.

The proposal includes the introduction of a new dumbbell roundabout junction on the A415 Abingdon Road, to the west of the existing entrance of Culham Science Centre. This new junction will provide an upgraded connection between the A415, Station Road to Culham railway station, Culham Site No. 1, Culham Science Centre and the new proposed bypass. The new bypass link is proposed to be approximately 1.75km in length, and will follow the existing alignment of Thame Lane, with a new connection to the B4015 Oxford Road at the northern end. A new 3-arm roundabout is also proposed on the B4015 Oxford Road to the north of Clifton Hampden, providing a new junction connecting the new bypass link to Culham Science Centre, Oxford Road towards the A4074, and Oxford Road towards Clifton Hampden. Upgrades will also be carried out along Oxford Road on the approach to the new roundabout.

1.3 WCHAR study area

The GG 142 requires a minimum radius of 5km for the study area of a large scheme on the trunk road network. However, this scheme does not form part of the trunk road network, and after careful review of the proposed works, a reduced local study area extent (1km radius) has been agreed with OCC to be appropriate for this study. Figure 2 shows the study area.

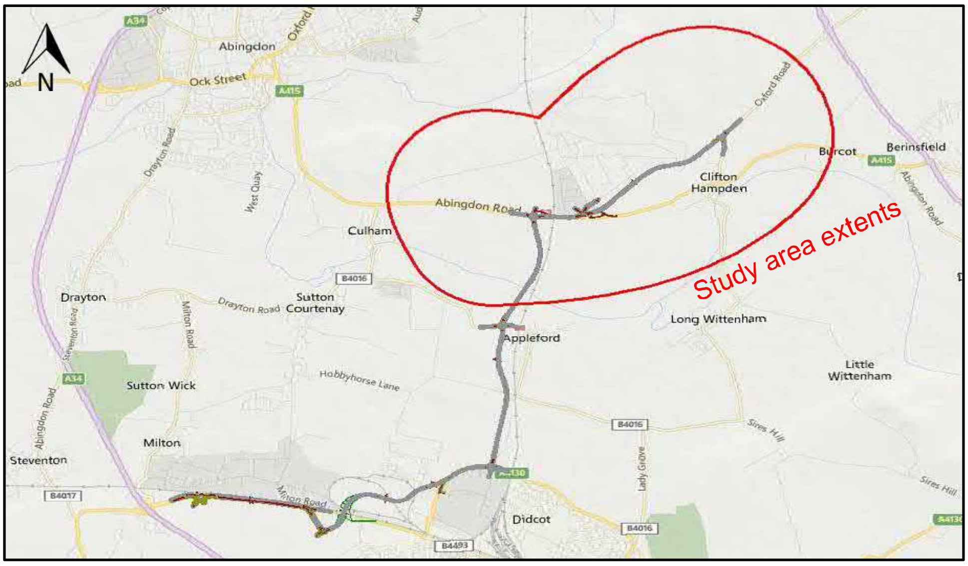


Figure 2[2]: Study area location plan for the WCHAR

[2] *"Google Map™ and Google Streetview™ have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google Inc."*

2. WCHAR assessment

2.1 Assessment of walking, cycling and horse-riding policies and strategies

The following regional and local planning policy documents have been reviewed as part of the Assessment.

Connecting Oxfordshire: Volume 4 Local Transport Plan 2013-2031 (Adopted 2016) - Active & Healthy Travel Strategy

The strategy states that the number of people who usually drive short journeys to work in Oxfordshire is increasing and therefore roads are becoming more congested. Oxfordshire County Council have a vision to make cycling a safe, simple and accessible option for people of all ages, and in turn make cycling a major mode of travel and reduce air pollution in Oxfordshire. This will include an increase in multimodal door-to-door trips by integrating the cycling and public transport networks to allow bike-rail and bike-bus journeys.

As part of the Strategy, a Cycle Premium Route between Didcot to Culham Science Centre, via the existing National Cycle Route 5 between Didcot and Long Wittenham and then on-road towards Culham Science Centre via Clifton Hampden Bridge, has been identified as part of the proposed Science Vale Cycle Network as shown in Figure 3. This cycle network has been identified to be a focus for future investment to cycling in the area. Given the importance of the route between the two key attractors in the region, and the existing site constraints at the Clifton Hampden Bridge, measures to reduce traffic through Clifton Hampden shall be prioritised to improve the cycle environment. The proposed Clifton Hampden Bypass will provide a new route from the B4015 Oxford Road to Culham Science Centre, which will unlock the opportunity to provide a high-quality cycle route through Clifton Hampden.

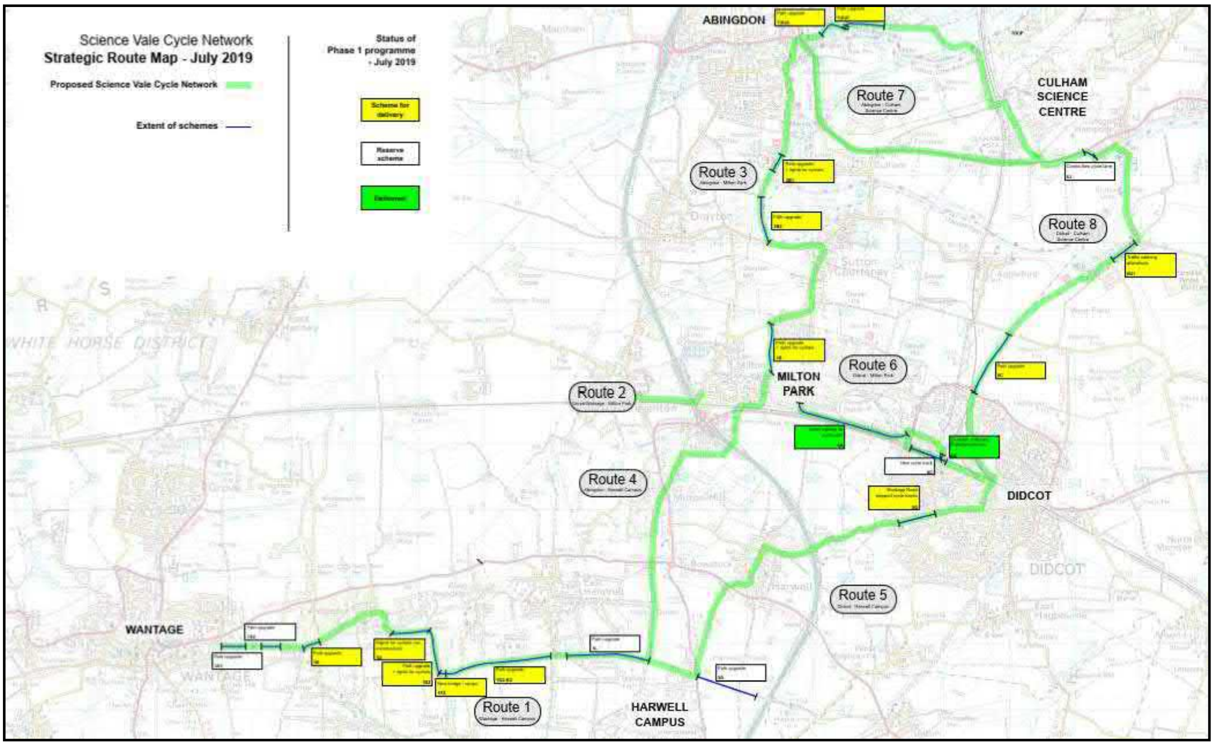


Figure 3 Proposed Science Vale Cycle Network route map[3]

[3] Oxfordshire County Council, Science Vale Cycling Network [online] (December 2019) https://www.oxfordshire.gov.uk/sites/default/files/file/roads-and-transport-major-projects/science_vale_cycle_network.pdf

Oxfordshire County Council also have an overall aspiration to enable and encourage walking to be a travel mode of choice for short trips and the most popular and accessible form of recreational activity. The ambition is to make all streets and public spaces to be accessible to all users.

This scheme shall therefore ensure that walking and cycling facilities, suitable for all types of users, are provided along the proposed highways, and provide improvements to the overall walking, cycling and horse-riding network across the area.

Oxfordshire Rights of Way Management Plan 2015-2025 (November 2014)

The Rights of Way Management Plan is a ‘daughter’ document to the Oxfordshire Local Transport Plan and supports the delivery of the Councils overarching strategic goals. The main strategic objectives which are relevant to the proposals and considered as part of this Assessment include:

- Improve public health and wellbeing by increasing levels of walking and cycling, and enabling inclusive access to jobs, education and services.
- Reduce the proportion of journeys made by private car by making the use of public transport, walking and cycling more attractive.
- Maximise the use and value of existing and planned sustainable transport investment, by linking and integrating this with planned development to allow continued and increased use of the right of way network.

South Oxfordshire District Council – Emerging Local Plan 2011-2034 (January 2019)

The Clifton Hampden bypass has been identified in the emerging plan as one of the strategic transport schemes in which land should be safeguarded to support this (Policy TRANS1),

It states that this scheme, along with the proposed Didcot to Culham river crossing scheme will have “strategic transport benefits and is required to support development proposed in the emerging South Oxfordshire Local Plan, as well as development allocated in the Vale Local Plan Part 1 and development proposed in the emerging Vale Local Plan Part 2. It is also part of a package of transport infrastructure in this area as identified in the Science Vale Area Transport Strategy in the Oxfordshire Local Plan, which includes the Clifton Hampden Bypass and the Didcot Northern Perimeter Road.”

South Oxfordshire District Council – Core Strategy 2027 (adopted December 2012)

The Core Strategy states that large amounts of economic investment and housing are planned in the Science Vale Area, and “improvements are needed to ease access around this area particularly in respect of east-west movements”.

One of the key development objectives is the “redevelopment of parts of Culham Science Centre to provide further high value jobs”. South Oxfordshire District Council has committed to proactively working with Culham to develop an agreed masterplan that facilitates this growth and considers the wider traffic implications of proposals.

The proposed Clifton Hampden Bypass will support the movement that strengthens links between key places and will provide the necessary infrastructure to support the redevelopment of Culham Science Centre and the proposed increase in jobs.

South Oxfordshire Infrastructure Delivery Plan (January 2019 update)

As part of the delivery plan, land adjacent to Culham Science Centre has been identified for the delivery of 3500 dwellings. In order to support these proposed developments, key infrastructure requirements for Culham include contributions towards the Didcot to Culham Thames River Crossing, Clifton Hampden bypass and the upgrading of the A4074/B4015 Golden Balls junction; as well as the enhancements to encourage sustainable travel.

Didcot Garden Town Delivery Plan (October 2017)

The Didcot Garden Town vision recognises that Didcot will grow from approximately 26,000 people to over 60,000 by 2031. With this growth, Didcot is expected to become the largest town in Southern Oxfordshire and if the means by which residents move around the town remains unchanged, town wide journeys by car will double. This will result in pressure on the existing highways network, and investment is required to provide the necessary infrastructure to enable a modal shift away from private cars towards other modes of transport.

The east-west movement corridors and Science Bridge have been identified as one of the key proposals to achieve sustainable movement across the area. One component of these corridors is the Didcot to Culham River Crossing as reviewed as part of this Assessment.

A new cycle route between Harwell, Didcot and Culham, referred to as the Garden Line, has also been identified in the delivery plan. This is proposed to include upgrading of the route to Culham and a new river crossing to the east of the railway line.

Design Standards

The following design standards have also been identified and considered during the assessment:

- Oxfordshire Walking Design Standards (A guide for Developers, Planners and engineers, summer 2017).
- Oxfordshire Cycling Design Standards (A guide for Developers, Planners and engineers, summer 2017).
- CD195 Designing for Cycle Traffic
- CD143 Designing for walking, cycling and horse-riding
- Advice on Road crossings for horses (The British Horse Society).

2.2 Collision data

Collision data has been provided to AECOM by Oxfordshire County Council for a 5-year period between 9th June 2014 and 8th June 2019. There was a total of 14 collisions recorded within the scheme extents, with 18 casualties, the severity is summarised by year in Table 1 and Table 2. As shown total yearly collisions do not show any evidence of deterioration or improvement in road safety along the local highways.

Severity / Year	2014	2015	2016	2017	2018	2019	Total
Fatal	0	0	0	0	0	0	0
Serious	0	2	1	0	0	0	3
Slight	2	2	2	2	2	1	11
Total	2	4	3	2	2	1	14

Table 1: Total collisions by severity

Severity / Year	2014	2015	2016	2017	2018	2019	Total
Fatal	0	0	0	0	0	0	0
Serious	0	2	1	0	0	0	3
Slight	2	2	4	3	3	1	11
Total	2	4	5	3	3	1	18

Table 2: Total casualties by severity

For the purpose of this Assessment, a cluster site has been defined as an area with seven or more collisions within a 100m radius over a 5-year study period. No cluster sites have been identified within the study area.

Table 3 provides a summary of the collisions based on location, severity and type. **Appendix B** contains the full details of the collisions, which are also presented with balloon diagrams on the plot included in drawing CHB-ACM-HGN-SW_ZZ_ZZ_ZZ-DR-Z-0001.

Location	Collision Severity	Collision Type	Pedestrians/Cyclist involved?	Contributory Factors
A415 Abingdon Road/ Station Road junction	1 slight	1 shunt	No	Failure to look - right turning vehicle
A415 Abingdon Road, west of Culham Science Centre entrance	1 serious, 2 slight	3 shunts	No	Failure to look - overtaking, stationary vehicle. Sudden braking
A415 Abingdon Road, Turnpike Petrol Station/High Street	1 serious	1 right turn collision	No	Failure to look - right turning vehicle
	2 slight	1 shunt 1 right turn collisions	No No	Failure to look - right turning vehicle Stationary vehicle waiting to turn right
	1 slight	1 shunt	No	Sudden braking
A415 Abingdon Road, Clifton Hampden	2 slight	1 shunt 1 cycle/pedestrian collision	No Yes	Failure to look – traffic signals
High Street, Clifton Hampden	1 slight	1 stationary vehicle/passenger collision (slight)	Yes	Failure to look

	1 serious, 1 slight	1 loss of control – M/C 1 loss of control - LGV	No	Slippery road, and road layout

Table 3 Collision summary by location

2.3 Public transport services and interchange information

Pedestrians, cyclists and equestrians may combine their modes of travel with public transport as part of a longer trip. As part of this Assessment, public transport services and associated infrastructure such as rail and bus stations (including bus stops) and interchanges have been identified to enable an appropriate assessment of the integration of such modes.

2.3.1 Bus Service

Bus stops are located within the study extents at the following locations:

- Culham Science Centre entrance
- Village Hall, A415 Abingdon Road at Clifton Hampden
- Post Office, High Street, Clifton Hampden
- A4074, Golden Balls Roundabout

Table 4 summarises the bus services currently operating within the study extents, their frequency and routing. The main routes are also shown in the South Oxfordshire Zone network map shown in Figure 4.

Bus stop	Bus Route	Operator	Frequency	Days of service	Route connections
Culham Science Centre	45	Thames Travel	Hourly 05:30 to 20:20, Additional peak service between 17:00 and 17:30	Monday - Friday	Abingdon to Wantage, via Culham, Sutton Courtney and Milton
			Hourly 07:45 to 19:35	Saturday	
			No service	Sunday	
	BB1B	Thames Travel	1 AM and 1 PM service	School days only	Berinsfield to Didcot Schools via Burcot, Clifton Hampden, Drayton, Steventon and Milton Heights
Village Hall, A415 Abingdon Road, Clifton Hampden	BB1B	Thames Travel	1 AM and 1 PM service	School days only	Berinsfield to Didcot Schools via Burcot, Clifton Hampden, Drayton, Steventon and Milton Heights
Post Office, High Street, Clifton Hampden	D1	Going Forward Buses	1AM service	Monday	Berinsfield to Didcot, via Long Wittenham and Clifton Hampden
			1AM and 2 PM	Wednesday	
A4074, Golden Balls	NX40 River Rapids	Thames Travel	Every 20mins	Monday - Friday	

Roundabout (request stop)	X38 River Rapids	Every 20mins	Saturday	Oxford – Wallingford - Reading/Henley
	X39 River Rapids	Hourly	Sunday	
	X40 River Rapids			

Table 4: Bus stops and bus route - Culham and Clifton Hampden

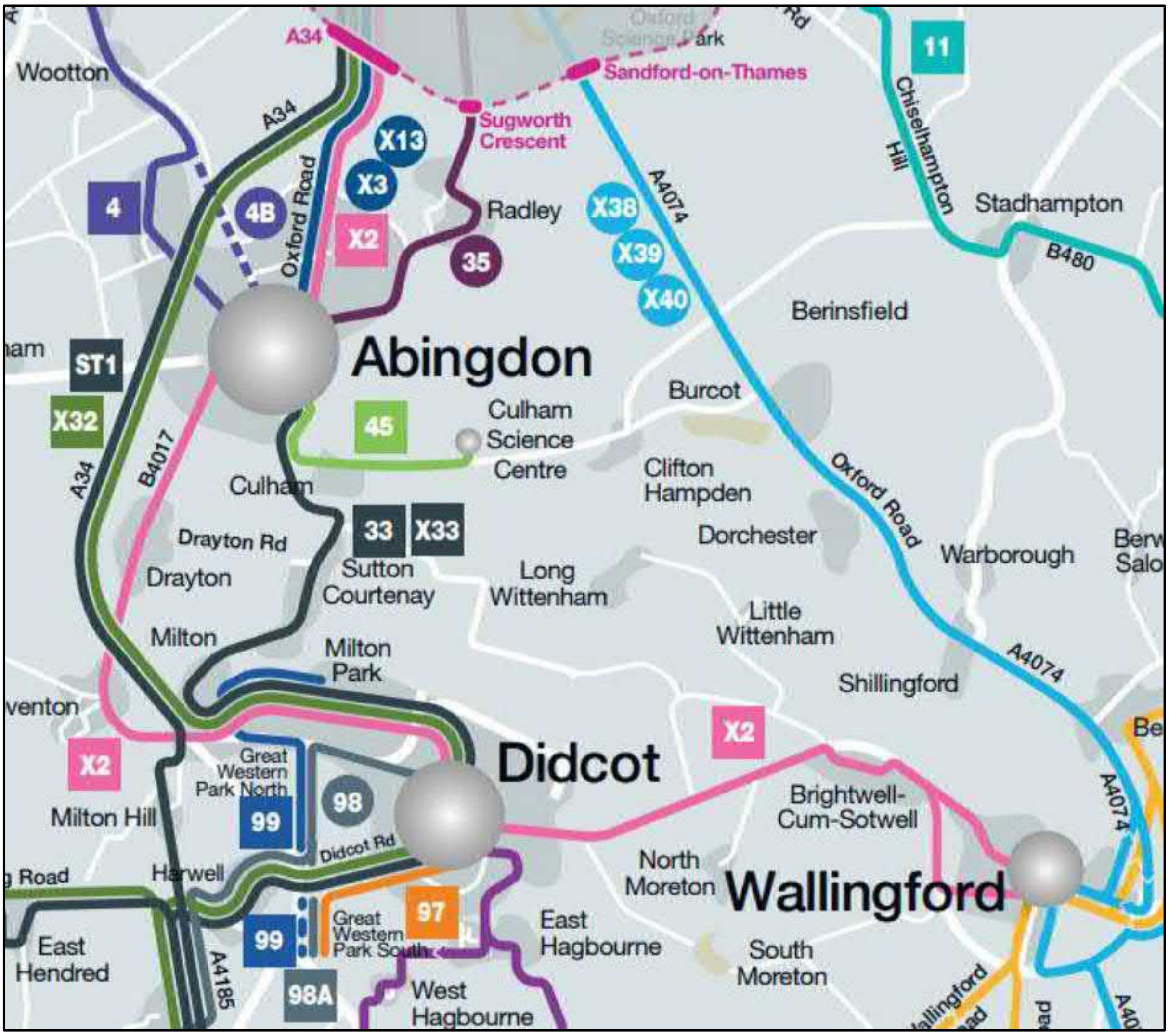


Figure 4 Extract of South Oxfordshire Zone network map

2.3.2 Train service

The proposed Clifton Hampden Bypass runs towards the west of the Oxford to Didcot railway line. There is a single train station location with the study extents at Culham. Train services along this route are operated by Great Western Rail, with services directly into Reading, Didcot Parkway, Oxford and Banbury. With an interchange at either Didcot Parkway or Reading, Great Western Rail train services can also be used to reach London Paddington, Cardiff Central, Weston Super Mare, Cheltenham Spa, Swansea, Taunton, Bristol Temple Meads and Carmarthen as shown in the network map included in Figure 5.

Culham railway station is located approximately 0.5km to the west of Culham Science Centre and 2.4km to the east of Culham village. The station is unattended with limited facilities. The station car park has 8 spaces. Sheltered cycle parking with 26 storage spaces is also available.

Train services which currently serve Culham are infrequent, and summarised as follows based on GWR published timetables:

- Monday to Friday:
  - 2 early morning, and 1 late morning service
  - Half-hourly services during peak times between 07:30 and 09:00, and between 17:00 and 18:20
  - 1 midday and 1 mid-afternoon services
  - 2 evening services (19:30 – 21:00).
- Saturday – 2-hourly service between 07:30 and 10:00; 13:30 and 16:00; 19:30 – 22:00, with 2 early morning services.
- Sunday – No services.

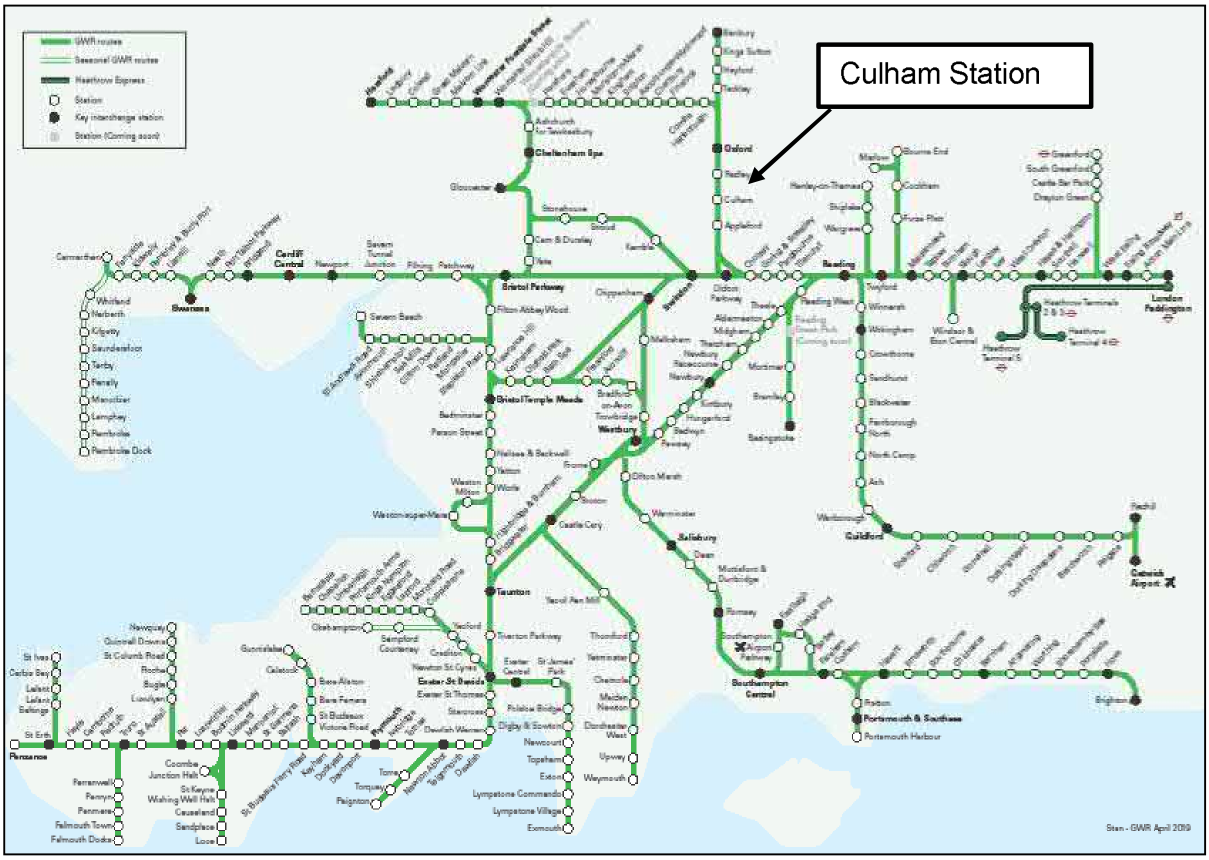


Figure 5: Great Western Railway network map

2.4 Key trip generators and local amenities

2.4.1 Key trip generators

The key trip generators in the vicinity of the proposed improvements include the following:

Local businesses and key places of interest

- Culham Railway Station
- Culham Science Centre
- Culham No.1 Site including High Ropes Oxford, Oxford Adventure Park
- Europa School UK, Culham

Residential areas within the study area

- Clifton Hampden
- Burcot

Residential areas – outside of 1 km of study area

- Culham Village
- Berinsfield
- Long Wittenham

2.4.2 Committed developments

Housing areas are planned for Great Western Park and Valley Park in south-east Didcot, Ladygrove North in north-east Didcot, North-east Wantage, and at other locations including Culham, Berinsfield and Dalton Barracks[4]. This amounts to more than 22,000 houses planned for the local area. Major employment development is planned for within the two Enterprise Zones, Science Vale and Didcot Growth Accelerator, and elsewhere at Milton Park and Didcot Power Station, for Grove Airfield, Culham Science Centre and Harwell IBC. If these developments were allowed to progress without any improvements in the capacity of the transport networks, then the result would be likely to be unacceptable local congestion.

The Oxford Strategic Model (OSM) was developed using 2013 as the base conditions to assess the predicted traffic growth in the area. Model outputs suggest that in 2031, with all the planned developments, there would be around a 30% traffic growth in flows across Culham Bridge; and Clifton Hampden Bridge by around 30% in the peak periods and around 40% in the inter-peak.

According to the South Oxfordshire District Council planning website there is a large proposed development located at the land at Culham Science Village, Culham Oxfordshire (P17/S3719/SCO), as outlined in Figure 6. The proposed development is a residential led mixed-use development and is at the scoping stage.

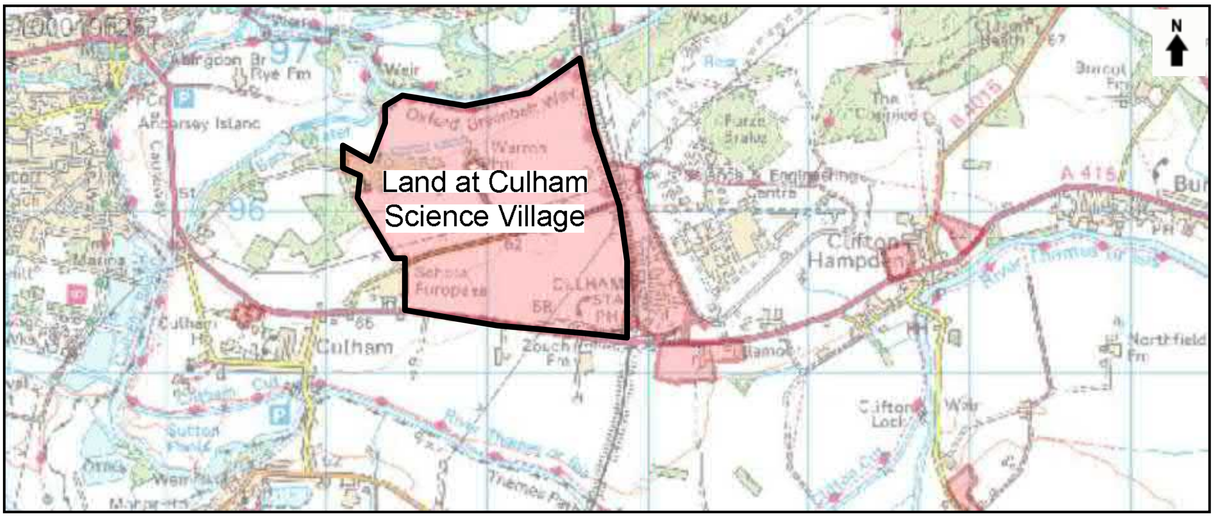


Figure 6 Oxfordshire County Council Planning application interactive mapping

[4] Access to Science Vale – Option Assessment Report (OAR)

2.5 Site visit

A site visit was undertaken on the 10th November 2019, between 10:00 and 12:00. The site visit took the form of walking along the available public pedestrian and cyclist facilities within the proposed corridor. The weather during the site visit was cold, with light showers.

The primary findings of the site visit were:

- **A415 Abingdon Road, Culham** – Shared cycle-pedestrian footways are provided on the northern side of the carriageway along the length of Abingdon Road from Culham Village to Culham Science Centre. To the west of the private farm access, there is no physical separation between the footway and the carriageway as shown in Figure 7. White lining is provided along the footway to delineate its edge; however, this was observed to have worn away.

  To the east of the farm access, a grass verge segregation strip is provided between the footway and carriageway as shown in Figure 8 which is considered more suitable for the high-speed road with a national speed limit. One cyclist was seen using the facilities during the site observations.

Figure 7 A415 Abingdon Road, shared use footways

Figure 8 A415 Abingdon Road, west of farm access

- **Culham Railway Station** – On the approach to the station from the west, the cyclists are signed down the local road to the Railway Inn where there is limited cycle parking within the station. All sheltered cycle storage is on the eastern platform side, which appears to match the demand.

  From the eastern approach shared cycle-pedestrian footways are provided from Culham Science Centre, along Station Road and terminating at the station entrance as shown in Figure 10.

Figure 9 Cycle parking at Culham Railway Station

Figure 10 Culham Railway Station – eastern approach

An uncontrolled crossing is provided near the station car park entrance on Station Road, as shown in Figure 12. On-street parking was observed adjacent to the crossing shown in Figure 11, limiting visibility of oncoming vehicles, however traffic volumes and speeds are low so this was not considered a critical safety concern. A segregation strip is provided on the footways, delineated by white lining where there is no verge. At the time of the site visit, works were being carried out at the junction of A415 Abingdon Road and Station Road.

Figure 11 Station Road - Shared cycle-pedestrian footways

Figure 12 Station Road – uncontrolled crossing

Culham Science Centre Access – Shared cycle-pedestrian facilities between the Station Road and the entrance of the Science Centre appeared to be well-maintained and well-signed, and away from the main vehicular entrance. Bus stops provided outside the Science Centre have shelters and bus cage markings, no passengers or buses were observed at the time of the site visit. An uncontrolled crossing point was noted on the A415, near the eastbound bus stop, providing access to the shared footways on the southern side of Abingdon Road. This footway continues east at the crossing towards the bus stop but terminates to the west of the stop.

2.6 Existing walking, cycling & horse-riding network facilities

2.6.1 Local facilities

The existing facilities for non-motorised users along the proposed highway corridor include the following:

- A415 Abingdon Road – shared use footways from Culham village to the entrance of Culham Science Centre
- Station Road – shared use footways from A415 Abingdon Road to the entrance of the Culham railway station car park
- B4015 Oxford Road – There are no footways or dedicated NMU facilities to the north of Clifton Hampden. Footways are currently provided through the village but terminate at the access with Orchard Barn located just north of the junction with Courtiers Green.

2.6.2 Local routes and strategic networks

The following pedestrian, cyclist and equestrian routes within the study extents have been identified, which are of relevance to the Assessment and are also shown on Figure 13.

- **RB-1**: East-west restricted byway to the north of Culham Science Centre along Thame Lane and Thame Lane (path). This byway is part of the Green Belt Way which forms a 50mile circular walking route around Oxford. To the west of the railway, the Green Belt Way route continues alongside the River Isis.
- **FP-1**: North-south footpath between Clifton Hampden and the Green Belt Way, to the east of Culham Science Centre. The route is formed of an unsurfaced, worn path along the boundary of fields. At Abingdon Road the access to the path is gated and located just within the 30mph speed limit. No crossing facilities are currently provided for connectivity to the existing footway on Abingdon Road or the onward footpath to Clifton Hampden village. Visibility at the access appears to be poor.
- **FP-2:** North-south public footpath between Clifton Hampden and Thame Lane (path), where the route continues through Nuneham Courtney along the Oxford Greenbelt Way.
- **FP-3:** Signed east-west public footpath between Oxford Road, and the restricted byway along Thame Lane and the Green Belt Way.
- **FP-4**: Signed east-west public footpath through a farmer’s field, connecting Croft Cottages, located on Abingdon Road in Burcot, with Oxford Road to the north of Clifton Hampden. The route appears to have low usage, and the exact location of the access to the path on Oxford Road is unclear. Based on mapping, this route connects to FP-3 on the western side of Oxford Road.
- Based on the British Horse Society Equestrian Access Mapping, there are no official rides or trails within the study area.

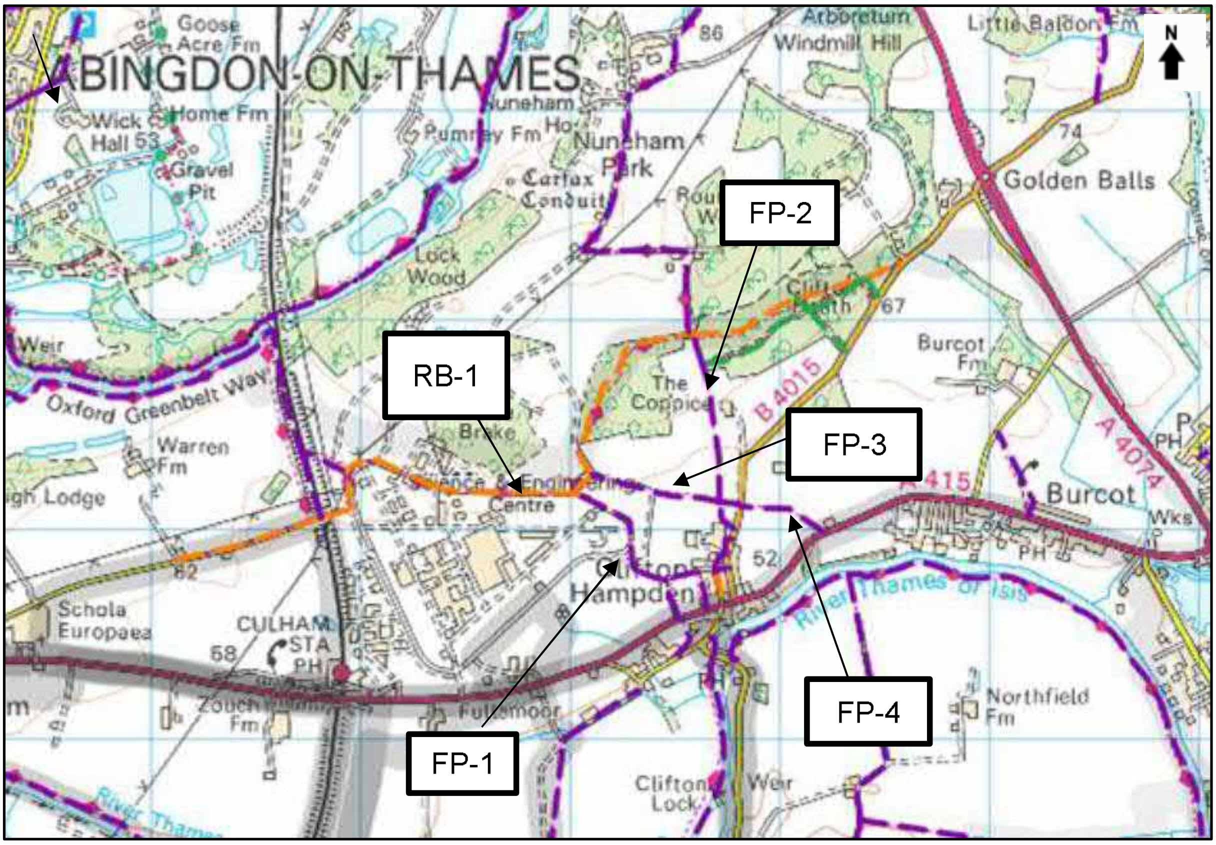


Figure 13 Extract of OCC Public Right of Way Map

2.6.3 National Cycle Route

National Cycle Route (NCR) 5 is the closest regional route to the proposed scheme and is a long-distance route which connects Reading and Holyhead via Oxford, Stratford-upon-Avon, Bromsgrove, Birmingham, Stoke-on-Trent, Chester, Colwyn Bay and Bangor.

The closest point on the NCR5 to the proposed scheme is the on-road route at Long Wittenham. To the east of Long Wittenham, the route continues in a south-easterly direction towards Wallingford, and to the west, the route continues in a south-westerly direction towards Didcot.

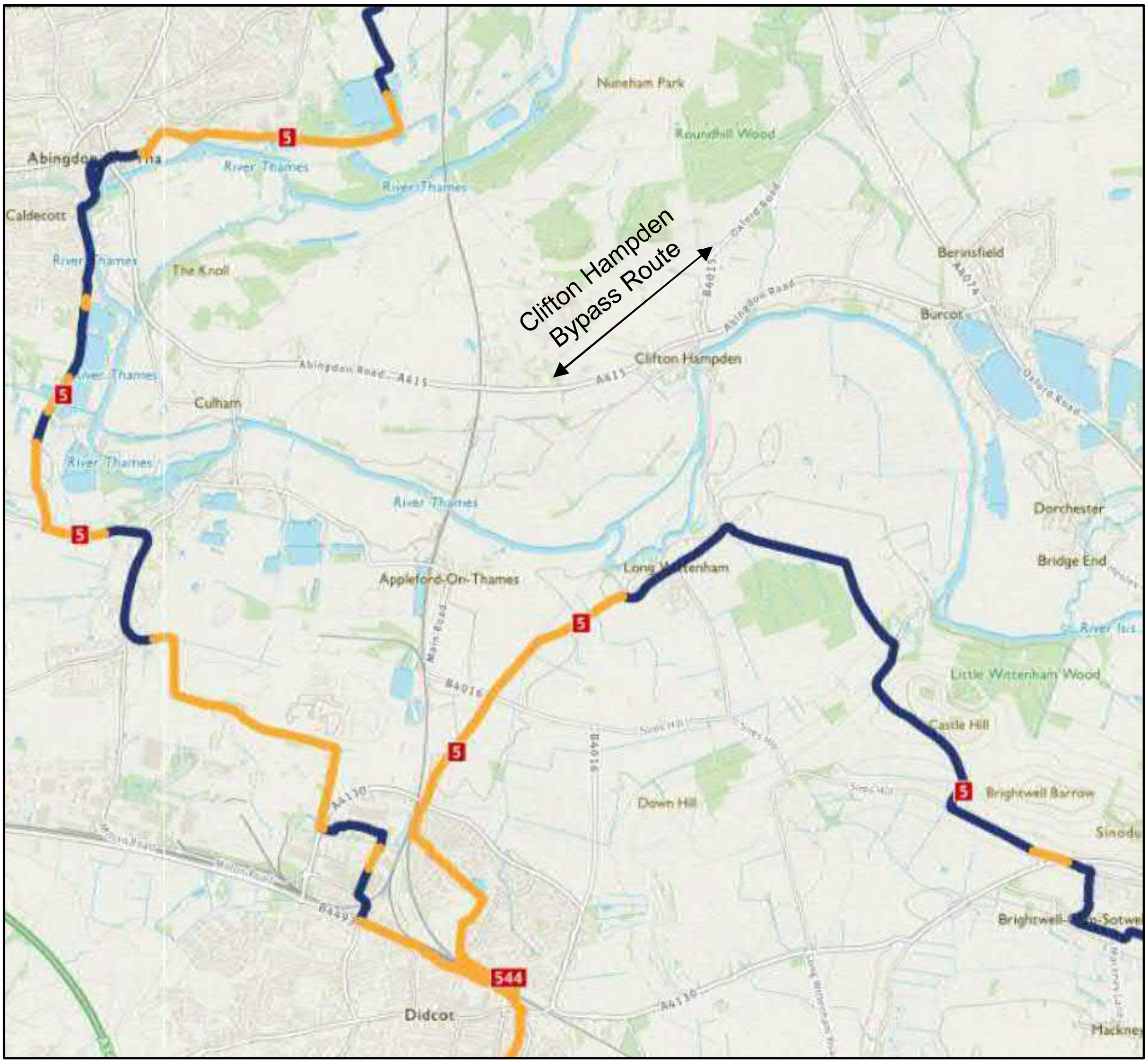


Figure 14: Extract of Sustrans National Cycle Network Map

2.7 Walking, cycling & horse-riding survey data

AECOM commissioned Traffic Data Centre (TDC) to undertake a survey in November 2019 to collect data on walking, cycling and horse-riding movements at four locations within the scheme extents. Where located on the public highway these surveys were conducted over a 7-day, 24-hour period using video cameras. Where located on public footpaths, these surveys were undertaken manually on one weekday, Saturday and Sunday during daylight hours only. The data was collected in order to provide a quantitative understanding of walking, cycling and horse-riding demand and understand the use of junctions in the scheme.

The surveys were undertaken between Monday 11th November to Sunday 17th November 2019. The surveys were undertaken to capture walking, cycling and horse-riding movements through the junctions and surrounding area. Weather throughout the survey period was predominantly cloudy, with sun only on the Monday 11th November. There were also showers from Thursday to Sunday.

The count locations are shown in Table 5. Two ATC counts were also completed to identify traffic speeds and volumes in the area. A map of these locations is shown on drawing 60606782_NMUSURVEY_002 Revision A, included in Appendix C.

Survey ID	Location	Survey type	Grid reference
CHB-01	B4015 Oxford Road	ATC speed survey	
CHB-02	Junction on B4015	Classified NMU OD count	E: 454813 N: 196306
CHB-03	Footpath North of Clifton Hampden	Manual Classified NMU OD count (Friday and weekend survey only)	E: 454717 N: 196138
CHB-04	A415 Abingdon Road to west of High Street, Clifton Hamden	ATC speed survey	
CHB-05	Footpath, junction on A415 Abingdon Road	Manual Classified NMU OD count (Friday and weekend survey only)	E: 454511 N: 195566
CHB-06	Culham Science Centre (Main Avenue) Junction on A415 Abingdon Road	Classified NMU OD count	E: 453486 N: 195200
CHB-07	Station Road (east) junction on A415 Abingdon Road	Classified NMU OD count	E: 453196 N: 195184

Table 5: Locations for WCHAR surveys

2.7.1 ATC speed surveys

Table 6 provides a summary of the average and 85%ile speeds recorded on the B4015 Oxford Road and the A415 Abingdon Road, Culham. Surveys suggest that typical vehicles are travelling below the speed limit on both roads, with an average of speed of 41mph on Oxford Road to the north of Clifton Hampden and 32mph on the A415 Abingdon Road, Clifton Hampden to the west of High Street and the existing speed limit change signs.

Survey ID	Location	Direction	Speed limit (mph)	Average speed (mph)	85%ile speed (mph)
CHB-01	B4015 Oxford Road	Northbound	50mph	41.0	45.9
		Southbound	50mph	41.7	49.0
CHB-04	A415 Abingdon Road to west of High Street, Clifton Hamden	Eastbound	50mph	28.3	39.5
		Westbound	50mph	35.0	40.2

Table 6: Surveyed average and 85%ile speeds

Table 7 provides a summary of the total number of vehicles recorded along B4015 Oxford Road and the B4016 during the survey period, and their classification. Surveys suggests that most vehicles currently using the two roads are private cars, comprising of 84- 86% of total traffic recorded.

Survey ID	Location	Total 2-way weekly traffic	Vehicle classification (%)					
			Cycles	Motorcycle	Car	LGV	HGV	Buses
CHB-01	B4015 Oxford Rd	55,593	0.17	0.80	85.60	13.10	0.25	0.08
CHB-04	A415 Abingdon Rd to west of High St	66,425	0.18	0.83	84.28	13.73	0.60	0.38

Table 7 Surveyed 2-way traffic flow and vehicle classification

2.7.2 NMU surveys

The total pedestrian, cyclist and equestrian movements observed over the survey periods have been marked on a location plan for each site. The full survey counts are provided in **Appendix D**.

No equestrians or wheelchair users were observed at any of the survey locations, over the survey period.

CHB-02: Junction on B4015

The number of NMUs recorded at this location during the weekend is greater than on weekdays, an average of 30 NMUs during the weekend in comparison to an average of 14 on a weekday suggesting this route is used predominately for leisure trips. There is a reasonably high number of cyclists travelling along the B4015 Oxford Road, although there are no dedicated facilities.

The total NMUs observed over the survey period is shown in Figure 15.

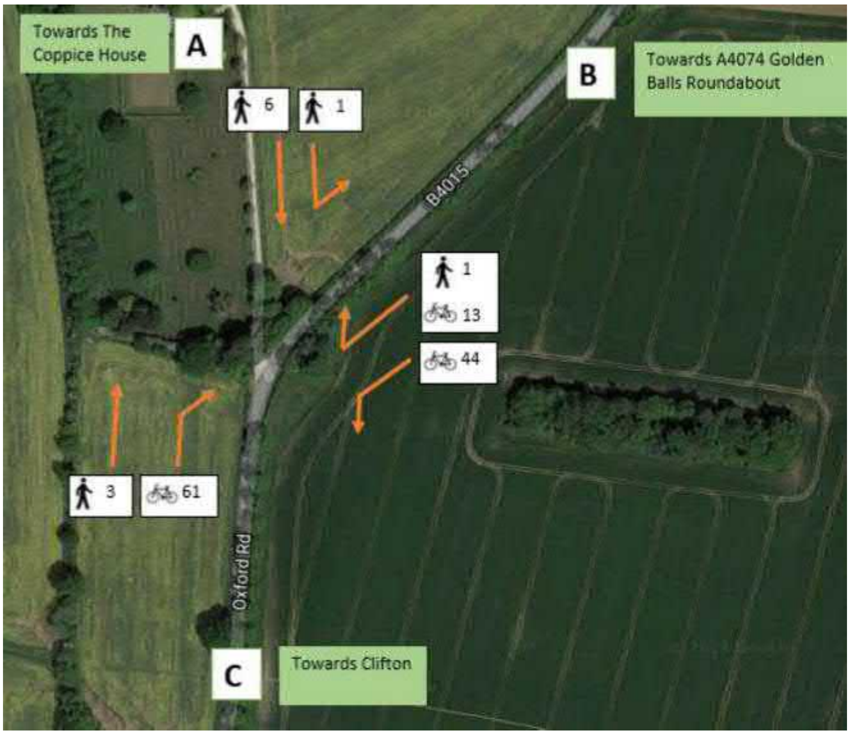


Figure 15 CHB-02 B4015 Oxford Road/The Coppice House – Total NMUs observed (7-day survey period)

CHB-03: Footpath to north of Clifton Hampden

The number of NMUs recorded at this location across the 3 survey days was relatively even, with the greatest number recorded on the Saturday (total of 20 users). Most users were seen after 10am.

The total NMUs observed over the 3-day survey period is shown in Figure 16.

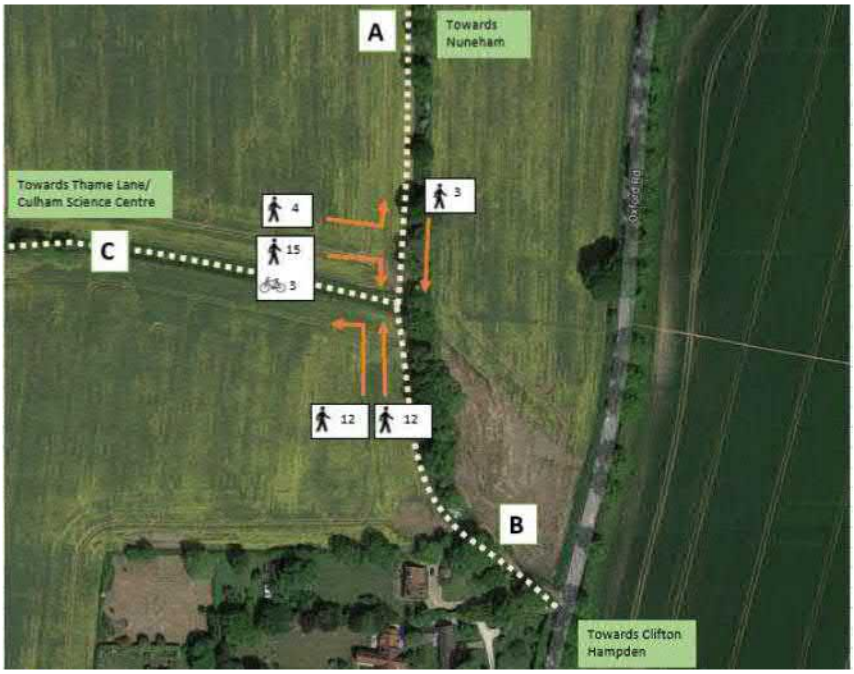


Figure 16 CHB-03 Footpath north of Clifton Hampden – Total NMUs observed (3-day survey period)

CHB-05: Footpath, junction on A415 Abingdon Road

The number of NMUs at this location recorded during the survey period on the Sunday (95 users) and Saturday (81 users), is much greater than the number observed on the Friday (21 users), suggesting this is a well-used and important local leisure route.

The total NMUs observed over the survey period is shown in Figure 17.

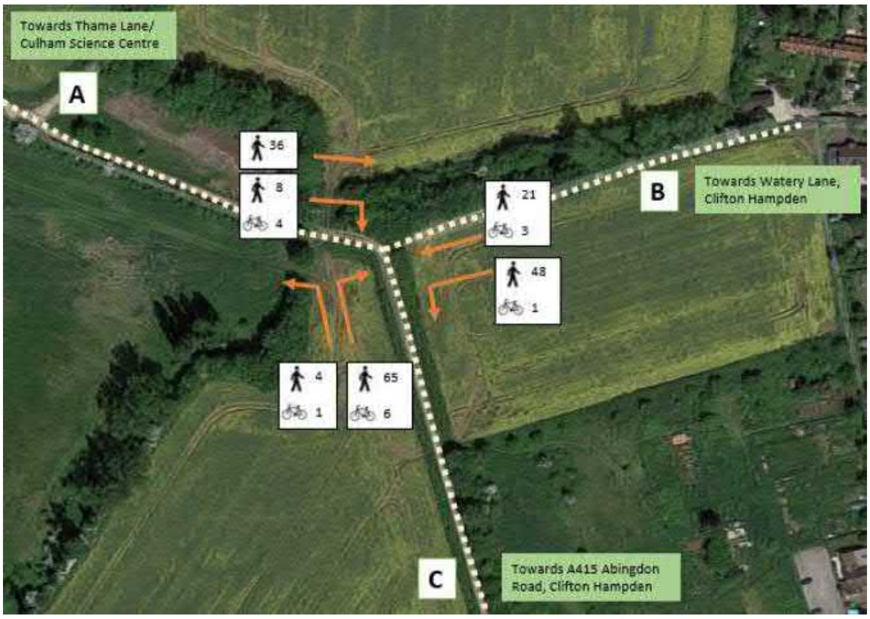


Figure 17 CHB-05 Footpath at A415 Abingdon Road – Total NMUs observed (3-day survey period)

CHB-06: Culham Science Centre (Main Avenue) Junction on A415 Abingdon Road

NMUs observed at this location were greater during the weekdays with an average of 86 each day, in comparison to 39 on a weekend day. The highest hourly numbers of NMUs were recorded between 8 to 9am, and 4 to 6pm suggesting that these are work related trips.

The existing shared use footways are well used by cyclists and although there are no formal facilities to cross between the shared use on the southern side of Abingdon Road to Culham Science Centre, this is done by almost half the cyclists.

The total NMUs observed over the survey period is shown in

Figure 18.

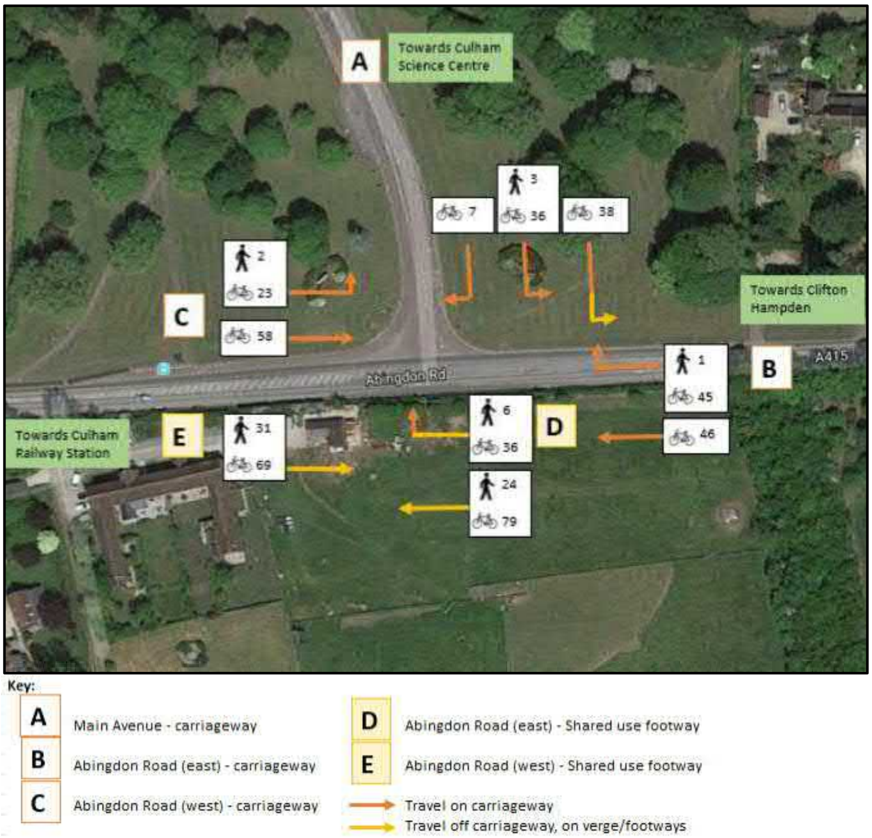


Figure 18 CHB-06 Culham Science Centre, Main Avenue – Total NMUs observed (7-day survey period)

CHB-07: Station Road (east) junction on A415 Abingdon Road

NMUs observed at this location were greater during the weekdays with an average of 666 each day, in comparison to 55 on a weekend day. On the weekdays, the highest hourly numbers of NMUs were recorded between 8 to 9am, and 5 to 6pm on suggesting that these are work related trips.

The existing shared use footways are well used by both pedestrians and cyclists. Given that the numbers at this location are significantly higher than that recorded at the Culham Science Centre Main Avenue/A415 Abingdon Road junction, the majority of pedestrian and cyclists are assumed to be travelling to and from the Science Centre but are using the existing shared use route which cuts through the landscaped area to the west of the main vehicular access rather than the main road where there are no facilities.

The total NMUs observed over the survey period is shown in Figure 19.

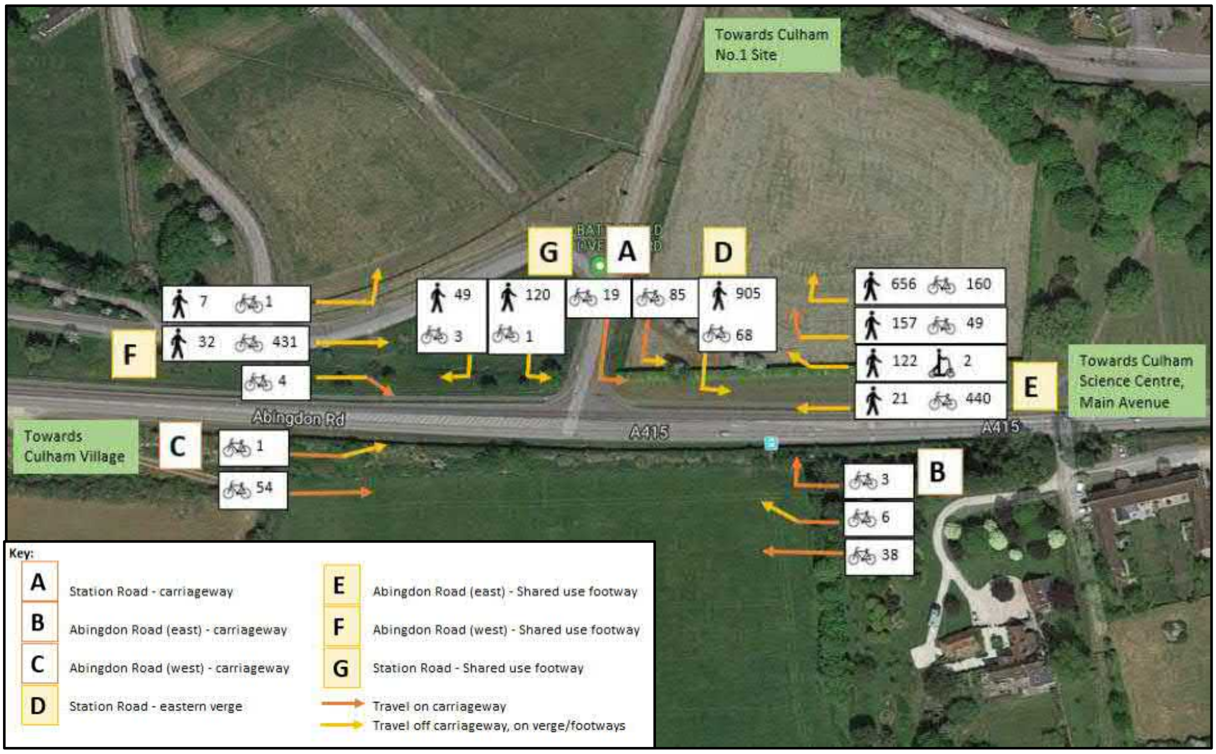


Figure 19 CHB-07 Station Road (east) junction on A415 Abingdon Road– Total NMUs observed (7-day survey period)

2.8 Consultation with key stakeholders and local user groups

In order to be able to incorporate, where appropriate, the comments and views of local people on the preferred alignments into the next stage of the scheme design process of the HIF1 package of schemes an online public consultation was undertaken. This commenced on 20th March and finished on 30th April 2020. Full details of the consultation are available online: www.oxfordshire.gov.uk/didcotupdate. The consultation plans shared for the Clifton Hampden Bypass scheme are included in Appendix F. It is noted that due to the timing of the consultation and aim to provide stakeholders with the most-up to date designs, this component of the Assessment has been carried out based on updated AECOM feasibility design drawings (rev P01).

As a result of Government restrictions on social distancing in response to the COVID-19 pandemic, it was not possible to hold the five public exhibitions that were scheduled for the last two weeks of March 2020. Due to the very tight timescales imposed by Government with respect to the terms of the funding, it was necessary to continue with an online consultation in order to avoid delay to the project programme.

However, to address this, OCC undertook additional measures to ensure that as many people as possible were aware of the consultation and were able to access the information. This included sending letters to approximately 22,000 residences in the area, using an innovative virtual exhibition room with live chat function, promoting telephone numbers of officers available to answer questions, and sending printed versions of the materials to those without internet access. This was all in addition to the standard means of engagement (newspaper adverts, press releases, electronic mailouts, OCC website etc).

Additionally, targeted questionnaires were sent out to local government departments and representatives of local user groups, seeking views on walking, cycling, and horse-riding elements of the infrastructure proposals. It should be noted that this scheme was consulted alongside the three other Didcot HIF highways schemes. Later in the year, it is intended that stakeholder workshops will be held to invite further input to the design of the walking, cycling, and horse-riding provision in all four proposed schemes. Overall, 24 questionnaires were sent out to a list of identified key stakeholders and user groups and included representatives from the following:

- OCC Active and Healthy Travel
- OCC Public Rights of Way
- Didcot Garden Town Project Manager
- Harwell Campus Bicycle Users Group (HarBUG)
- Sustrans Thames Valley
- Cyclox (Cycling UK local)
- Culham Science Centre Bicycle Users Group (CulBUG)
- Milton Park Bike Users' Group (MilBUG)
- Oxfordshire Cycling Network
- Ramblers Association
- Ramblers Association Oxon (& Oxford Fieldpaths Society)
- British Horse Society
- Oxfordshire Association for the Blind
- Oxfordshire Unlimited
- Guide Dogs
- Oxfordshire Transport & Access Group (OXTRAG)

In total, seven replies were received. In general, all respondees supported walking and cycling improvements, even if this means less space for other road traffic.

Table 8 provides a summary of the stakeholder responses relating to the proposed Clifton Hampden Bypass received during the consultation. A copy of the questionnaire and the full responses received are included in **Appendix E.**

Table 8 Summary of stakeholder responses to consultation

Consultee	Summary of Response
OCC Public Health	• OCC Public Health agreed that the proposed scheme would encourage walking and cycling. However, it is suggested that suitable complementary measures to improve pedestrian and cycle conditions are needed in decongested area to ensure that the reduction in congestion by introducing the new highways will not lead to increase in demand for private vehicle use. 'Whole place' improvements and reducing speed limits were suggested for these areas. • Strong support was expressed for the full segregation and setting back of walking and cycling facilities, and the shared use "short cuts" that will enable people to avoid busy junctions and roundabouts. • Concern was expressed relating to the proposed tangential roundabout design which may result in high vehicle speeds at the roundabout and safety concerns for pedestrians using the uncontrolled crossings on the roundabout. • Suggestion was made to consider a radial roundabout layout, and further measures to reduce traffic speeds and improve the pedestrian

Consultee	Summary of Response
	environment at the roundabouts including the consideration of green infrastructure. Measures to mitigate noise impacts was also mentioned.
OCC Public Rights of Way – Access Strategy & Development	• OCC PRoW were positive about the proposals but noted that the improvements for pedestrians are relatively close to traffic and has not included creation of alternative traffic free routes well away from carriageways and within local settlements. • It was also noted that complementary cycle routes within settlements must be provided to equal standard and traffic free where possible to encourage less confident cyclists to use their bikes. • OCC PRoW made the following suggestions: – Provide a wider cycle path to make the cycle-commuting faster and safe, as pedestrian use is likely to be low given the length of the corridor. – Further consideration for equestrian provision and onwards connections, by discussion with local and national representative of the British Horse Society and better understanding of their needs. – Formal consultation to be carried out with the statutory Oxfordshire Countryside Access Forum.
Harwell Campus Bicycle Users Group (HarBUG)	• HarBUG supported the proposed improvements along the Clifton Hampden Bypass and agreed that they will make cycling to Culham Science Centre easier from Didcot and, in parts, from Abingdon. • In general, they agreed that proposals would encourage walking and cycling however noted that pedestrian facilities along the route would only be used by people for short distance as a means to get places, but it would generally be an unpleasant environment and unlikely used for leisure. • It was noted that cycling will be encouraged by the proposals, only if direct and convenient connections to existing and new housing developments are provided and that all these routes are integrated into the Science Vale Cycling Network. • HarBUG raised concerns about the proposed unsignalised pedestrian and cycle crossings on the roundabout and that this should be reconsidered. It was also suggested that the cycle route from Abingdon to Culham Science Centre should be upgraded and improved so cycle commuters have a good alternative to using the main carriageway.
Milton Park Bike Users' Group (MilBUG)	• MilBUG were positive about the proposed walking and cycling improvements, however mentioned that cycle facilities must have good quality, safe and convenient onwards connections to places of local interest. • A number of suggestions were also raised: – Good segregation between footways and the carriageway to improve walking environment, including consideration for planting/landscaping – Signalised crossings or raised parallel crossings at junction to provide cycle priority at crossings. – New facilities and cycle route should encourage more people to cycle between Culham, Milton Park and other areas of Didcot.
Cyclox	• In general, Cycling UK were welcoming of the walking and cycling improvements proposed as part of the scheme to encourage and allow people to walk and cycle more often, however they had some significant concerns on the proposals in general and whether the schemes were promoting private car usage rather than walking and cycling.

Consultee	Summary of Response
	• Cycling UK, did not support the walking and cycling proposals as part of the Clifton Hampden Bypass, suggesting that: – Cycling will be diminished and made unattractive by the proposed new roads and lack of priority crossings. – Design of the roundabouts with unsignalised crossings or Toucan crossings is not attractive or safe to cyclists. – The location of the pedestrian crossing on the bypass at Culham Science Centre appears to be away from the main access gate and may not meet desire lines.
Oxfordshire Cycling Network (OCN)	• OCN were positive about the improvements and agreed in part that they would encourage walking and cycling however noted that walking will likely be for ‘function’ rather than pleasure due to the distances involved and that the new highways will also likely increase the attractiveness of driving. • OCN supported the proposals and agreed that the specification of the bypass itself was good for cycling and offers benefit for future connectivity, however the following should be considered: – Creation of a quiet lane along the A415 to Berensfield by reallocating road space and reduction of speeds, to enable the extension of the cycle route from Culham Science Centre / Clifton Hampden to Berensfield / Dorchester. – Provision of a parallel crossing rather than an unsignalised crossing at the Culham Science Centre roundabout.
Oxfordshire Transport & Access Group (OXTRAG)	• OXTRAG welcomes the improvements for encourage people to walk and cycle more often. • Agree with the walking and cycling facilities proposed and are pleased that there will be an off-carriageway cycleway/footway, however suggested that: – A link to the highways through an underpass should be provided. – The cycleway/footway should be extended north-westwards as far as the Golden Balls Roundabout. – Links are provided to the nearby bridleway to the north.

3. User opportunities

The opportunities highlighted below are deemed to be relevant to the highway scheme and should be considered by the design team leader throughout the progression of the highway scheme design in addition to any further opportunities that may arise through the ongoing development of the design phases.

It shall be noted that opportunities labelled “KS” have been identified through key stakeholder consultation carried out in April 2020 and have only been raised following the completion of the feasibility stage design due to the programme. Additional opportunities identified are to be reviewed by designers at the next stage of the design and to be included in the next stage WCHAR review.

3.1 General

Opportunity 1

Inclusion of dedicated pedestrian and cycle facilities along the proposed new highways corridor and up to the Golden Balls Roundabout to improve the accessibility for NMUs between Culham Railway Station, Culham Science Centre and areas to the north-east of Clifton Hampden.

Opportunity KS-1

Provision of well-designed junctions with safe and direct crossings, to provide a route which caters to all user. Consideration to be given to introduction of parallel crossings where safe to do so, to give priority to pedestrians and cyclists; or signalised crossings.

Opportunity KS-2

Inclusion of green infrastructure and landscaping, and maximise segregation distance between motor vehicles and NMUs, in order to provide a high-quality pedestrian and cycling environment and mitigate noise impacts.

Opportunity KS-3

Provision of complementary cycle routes and improvements to existing cycle infrastructure, and traffic calming measures within Clifton Hampden Village to encourage an uptake in cycling in areas where vehicle traffic may reduce due to the proposed new bypass.

Opportunity KS-4

Inclusion of the new cycle route along the Clifton Hampden Bypass into the proposed Science Vale Cycle Network, providing a consistent style and approach to wayfinding signage as proposed for the network.

3.2 Strategic opportunities

Opportunity 2

Provide a new signed link from Culham Railway Station to the Green Belt Way, via the new bypass. This will enable any leisure users to easily access the circular route who are using the train services.

Opportunity 3

Provide a new link between the two branches of the NCR 5, to provide a more direct route between Abingdon, Long Wittenham and Wallingford, without passing through Didcot.

Opportunity 4

Provide a connection between the promoted and well-used Thames Path at Clifton Hampden and the Oxford Green Belt Way to the north east of Culham Science Centre. This shall include consideration for an upgraded crossing on the A415 Abingdon Road and a crossing of the proposed bypass.

3.3 Pedestrian specific opportunities

Opportunity 5

Provide missing footway links between the Clifton Hampden Village and existing public footpaths accessed along Oxford Road. Simplification of the routes in the area shall also be considered to enable easier maintenance and allow for a high quality, maintained route to be provided from Oxford Road towards the Green Belt Way.

Opportunity 6

Upgrade access and wayfinding signage for the existing footpath between Clifton Hampden and Oxford Green Belt Way. Options to be considered shall include improved signage from the village, improved access treatment and visibility on Abingdon Road.

Opportunity 7

Renew the white lining on the existing shared cycle-pedestrian footways along A415 Abingdon Road.

Opportunity 8

As many of the routes are rural, provision of street lighting along key NMUs routes should be considered to encourage use throughout the year in all season, and weather conditions.

3.4 Cyclist specific opportunities

Opportunity 9

Provision of additional cycle stands at Culham Science Centre and Culham Station, to further encourage cycling as a means to travel to work.

Opportunity 10

Improve access to the existing shared footways on the southern side of Abingdon Road from Culham Science Centre. This shall include the consideration for providing crossing facilities near Culham Science Centre, to assist pedestrians and cyclists to access the off-carriageway facilities to travel towards Clifton Hampden.

Opportunity KS-5

Upgrade and improve the existing cycle facilities along the A415 from Abingdon to Culham Science Centre to cater for commuter demand and further encourage use of off-carriageway facilities. Installation of additional wayfinding signage and incorporation of improvements proposed along this route as part of the Science Vale Cycle Network.

Opportunity KS-6

Consider the possibility of extending the cycle route from Culham Science Centre / Clifton Hampden to Berensfield / Dorchester by improving the pedestrian and cyclist environment along the A415 to Berensfield. Measures to be considered shall include wayfinding signage, reallocating road space and reduction of speeds.

3.5 Equestrian specific opportunities

Liaison with key stakeholders and local user groups has not identified any key equestrian desire lines or demand within the scheme study area. British Horse Society have been included as part of the consultation, however, did not respond within the consultation period.

It has however been suggested during public consultation that further consideration should be given to equestrian provision and onwards connection to the nearby bridleways to the north of the proposed bypass.

Opportunity KS-7

To consult with BHS during the development of the design to ensure that equestrian demand is catered for, and future aspirations for equestrian routes have been considered as part of the design.

4. Walking, Cycling and Horse-Riding Assessment Team Statement

As Lead Assessor, I confirm that this Walking, Cycling and Horse-Riding Assessment Report has been compiled in accordance with DMRB GG 142 and thus contains the appropriate information for the wider design team. The Walking, Cycling and Horse-Riding Assessment was undertaken by the following Assessment and Review Team:

Walking, Cycling and Horse-Riding Lead Assessor

Name: Andy Blanchard — Signed:

Position: Associate Director — Date: 19/05/2020

Company: AECOM

Walking, Cycling and Horse-Riding Assessor

Name: Kin-Yun Lo — Signed:

Position: Senior Engineer — Date: 15/05/2020

Company: AECOM

As design team leader I confirm that the assessment has been undertaken at the appropriate stage of scheme development and that the wider design team has been involved in the process.

I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in GG 142.

Design Team Leader

Name: Shaun Wilkinson — Signed:

Position: Technical Direction — Date: 21/05/2020

Company: AECOM

Appendix B – Off-Site Junction Capacity Assessment Outputs

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: OFF 2 Junction-A4130_Service Area - Final.j9
Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF2 - Junction 18-A4130_Service Area
Report generation date: 02/07/2021 08:54:37

Summary of junction performance

	AM					PM				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
	2020									
Stream B-AC	D1	1.5	18.87	0.60	C	D2	1.2	15.27	0.55	C
Stream C-AB		0.4	10.74	0.31	B		0.6	11.74	0.38	B
	2024 with									
Stream B-AC	D3	1.0	17.49	0.49	C	D4	1.9	27.17	0.66	D
Stream C-AB		0.5	13.06	0.34	B		0.7	15.87	0.43	C
	2024 without									
Stream B-AC	D5	1.5	20.82	0.61	C	D6	1.4	17.41	0.59	C
Stream C-AB		0.5	12.27	0.33	B		0.6	12.29	0.40	B
	2034 with									
Stream B-AC	D7	2.3	28.23	0.71	D	D8	0.7	12.78	0.40	B
Stream C-AB		0.5	12.54	0.35	B		0.6	12.89	0.38	B
	2034 without									
Stream B-AC	D9	18.3	206.83	1.07	F	D10	3.1	34.40	0.77	D
Stream C-AB		1.4	31.09	0.60	D		0.9	16.31	0.47	C

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

File summary

File Description

Title	
Location	
Site number	
Date	19/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		2.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A4130		Major
B	Service Area		Minor
C	A4130		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	14.68	✓	1.22	✓	3.63	204.0	✓	15.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	250	46

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	718	0.079	0.200	0.126	0.286
B-C	784	0.075	0.189	-	-
C-B	800	0.193	0.193	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	1173	100.000
B		✓	263	100.000
C		✓	1196	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	78	1095
	B	0	0	263
	C	1061	135	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	13	7
	B	0	0	11
	C	9	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.60	18.87	1.5	C
C-AB	0.31	10.74	0.4	B
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	198	551	0.359	196	0.6	10.063	B
C-AB	102	561	0.181	101	0.2	7.810	A
C-A	799			799			
A-B	59			59			
A-C	824			824			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	236	521	0.454	235	0.8	12.544	B
C-AB	121	529	0.230	121	0.3	8.828	A
C-A	954			954			
A-B	70			70			
A-C	984			984			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	290	480	0.603	287	1.5	18.422	C
C-AB	149	484	0.307	148	0.4	10.701	B
C-A	1168			1168			
A-B	86			86			
A-C	1206			1206			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	290	480	0.603	289	1.5	18.871	C
C-AB	149	484	0.307	149	0.4	10.737	B
C-A	1168			1168			
A-B	86			86			
A-C	1206			1206			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	236	521	0.454	239	0.9	12.862	B
C-AB	121	529	0.230	122	0.3	8.865	A
C-A	954			954			
A-B	70			70			
A-C	984			984			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	198	551	0.359	199	0.6	10.253	B
C-AB	102	561	0.181	102	0.2	7.852	A
C-A	799			799			
A-B	59			59			
A-C	824			824			

2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		2.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	1123	100.000
B		✓	257	100.000
C		✓	946	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	108	1015
	B	0	0	257
	C	773	173	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	4	4
	B	0	0	7
	C	6	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.55	15.27	1.2	C
C-AB	0.38	11.74	0.6	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	193	586	0.330	192	0.5	9.080	A
C-AB	130	568	0.229	129	0.3	8.184	A
C-A	582			582			
A-B	81			81			
A-C	764			764			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	558	0.414	230	0.7	10.963	B
C-AB	156	538	0.289	155	0.4	9.388	A
C-A	695			695			
A-B	97			97			
A-C	912			912			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	283	518	0.546	281	1.2	15.043	C
C-AB	190	497	0.383	190	0.6	11.674	B
C-A	851			851			
A-B	119			119			
A-C	1118			1118			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	283	518	0.546	283	1.2	15.267	C
C-AB	190	497	0.383	190	0.6	11.736	B
C-A	851			851			
A-B	119			119			
A-C	1118			1118			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	558	0.414	233	0.7	11.143	B
C-AB	156	538	0.289	156	0.4	9.448	A
C-A	695			695			
A-B	97			97			
A-C	912			912			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	193	586	0.330	194	0.5	9.212	A
C-AB	130	568	0.229	131	0.3	8.244	A
C-A	582			582			
A-B	81			81			
A-C	764			764			

2024 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		1.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	1510	100.000
B		✓	182	100.000
C		✓	1158	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	66	1444
	B	0	0	182
	C	1030	128	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	18	6
	B	0	0	13
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.49	17.49	1.0	C
C-AB	0.34	13.06	0.5	B
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	137	497	0.276	136	0.4	9.922	A
C-AB	96	515	0.187	95	0.2	8.569	A
C-A	775			775			
A-B	50			50			
A-C	1087			1087			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	164	459	0.357	163	0.5	12.142	B
C-AB	115	474	0.243	115	0.3	10.021	B
C-A	926			926			
A-B	59			59			
A-C	1298			1298			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	200	406	0.494	199	0.9	17.240	C
C-AB	141	417	0.338	140	0.5	12.990	B
C-A	1134			1134			
A-B	73			73			
A-C	1590			1590			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	200	406	0.494	200	1.0	17.488	C
C-AB	141	417	0.338	141	0.5	13.056	B
C-A	1134			1134			
A-B	73			73			
A-C	1590			1590			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	164	459	0.357	165	0.6	12.328	B
C-AB	115	474	0.243	116	0.3	10.083	B
C-A	926			926			
A-B	59			59			
A-C	1298			1298			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	137	497	0.276	138	0.4	10.044	B
C-AB	96	515	0.187	97	0.2	8.618	A
C-A	775			775			
A-B	50			50			
A-C	1087			1087			

2024 with, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		2.83	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	1589	100.000
B		✓	234	100.000
C		✓	1381	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	78	1511
	B	0	0	234
	C	1226	155	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	17	7
	B	0	0	13
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.66	27.17	1.9	D
C-AB	0.43	15.87	0.7	C
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	176	485	0.363	174	0.6	11.480	B
C-AB	117	502	0.233	115	0.3	9.294	A
C-A	923			923			
A-B	59			59			
A-C	1138			1138			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	210	445	0.473	209	0.9	15.180	C
C-AB	139	458	0.304	139	0.4	11.263	B
C-A	1102			1102			
A-B	70			70			
A-C	1358			1358			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	258	389	0.662	254	1.8	25.907	D
C-AB	171	397	0.429	169	0.7	15.710	C
C-A	1350			1350			
A-B	86			86			
A-C	1664			1664			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	258	389	0.662	257	1.9	27.166	D
C-AB	171	397	0.429	171	0.7	15.867	C
C-A	1350			1350			
A-B	86			86			
A-C	1664			1664			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	210	445	0.473	214	0.9	15.841	C
C-AB	139	458	0.304	141	0.4	11.387	B
C-A	1102			1102			
A-B	70			70			
A-C	1358			1358			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	176	485	0.363	178	0.6	11.745	B
C-AB	117	502	0.233	117	0.3	9.378	A
C-A	923			923			
A-B	59			59			
A-C	1138			1138			

2024 without, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		2.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	1410	100.000
B		✓	240	100.000
C		✓	1054	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	93	1317
	B	0	0	240
	C	923	131	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	12	6
	B	0	0	11
	C	11	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.61	20.82	1.5	C
C-AB	0.33	12.27	0.5	B
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	181	522	0.346	179	0.5	10.430	B
C-AB	99	529	0.186	98	0.2	8.328	A
C-A	695			695			
A-B	70			70			
A-C	992			992			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	216	486	0.444	215	0.8	13.218	B
C-AB	118	491	0.240	117	0.3	9.637	A
C-A	830			830			
A-B	84			84			
A-C	1184			1184			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	264	437	0.605	262	1.5	20.251	C
C-AB	144	438	0.330	144	0.5	12.217	B
C-A	1016			1016			
A-B	102			102			
A-C	1450			1450			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	264	437	0.605	264	1.5	20.821	C
C-AB	144	438	0.330	144	0.5	12.272	B
C-A	1016			1016			
A-B	102			102			
A-C	1450			1450			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	216	486	0.444	218	0.8	13.586	B
C-AB	118	491	0.240	118	0.3	9.690	A
C-A	830			830			
A-B	84			84			
A-C	1184			1184			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	181	522	0.346	182	0.5	10.623	B
C-AB	99	529	0.186	99	0.2	8.376	A
C-A	695			695			
A-B	70			70			
A-C	992			992			

2024 without, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		2.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	1198	100.000
B		✓	273	100.000
C		✓	1272	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	120	1078
	B	0	0	273
	C	1098	174	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	3	3
	B	0	0	7
	C	5	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.59	17.41	1.4	C
C-AB	0.40	12.29	0.6	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	206	578	0.355	203	0.5	9.548	A
C-AB	131	559	0.234	130	0.3	8.362	A
C-A	827			827			
A-B	90			90			
A-C	812			812			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	245	548	0.448	244	0.8	11.805	B
C-AB	156	528	0.296	156	0.4	9.670	A
C-A	987			987			
A-B	108			108			
A-C	969			969			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	301	507	0.593	298	1.4	17.042	C
C-AB	192	484	0.395	191	0.6	12.214	B
C-A	1209			1209			
A-B	132			132			
A-C	1187			1187			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	301	507	0.593	300	1.4	17.405	C
C-AB	192	484	0.395	192	0.6	12.286	B
C-A	1209			1209			
A-B	132			132			
A-C	1187			1187			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	245	548	0.448	248	0.8	12.073	B
C-AB	156	528	0.296	157	0.4	9.740	A
C-A	987			987			
A-B	108			108			
A-C	969			969			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	206	578	0.355	207	0.6	9.716	A
C-AB	131	559	0.234	131	0.3	8.426	A
C-A	827			827			
A-B	90			90			
A-C	812			812			

2034 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		3.04	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	1387	100.000
B		✓	277	100.000
C		✓	1552	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	53	1334
	B	0	0	277
	C	1409	143	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	23	8
	B	0	0	11
	C	8	8	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.71	28.23	2.3	D
C-AB	0.35	12.54	0.5	B
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	209	518	0.403	206	0.7	11.441	B
C-AB	108	538	0.200	107	0.2	8.325	A
C-A	1061			1061			
A-B	40			40			
A-C	1004			1004			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	249	482	0.517	248	1.0	15.281	C
C-AB	129	499	0.258	128	0.3	9.703	A
C-A	1267			1267			
A-B	48			48			
A-C	1199			1199			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	305	431	0.707	300	2.2	26.604	D
C-AB	157	444	0.354	157	0.5	12.469	B
C-A	1551			1551			
A-B	58			58			
A-C	1469			1469			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	305	431	0.707	305	2.3	28.229	D
C-AB	157	444	0.354	157	0.5	12.539	B
C-A	1551			1551			
A-B	58			58			
A-C	1469			1469			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	249	482	0.517	254	1.1	16.118	C
C-AB	129	499	0.258	129	0.4	9.762	A
C-A	1267			1267			
A-B	48			48			
A-C	1199			1199			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	209	518	0.403	210	0.7	11.758	B
C-AB	108	538	0.200	108	0.3	8.380	A
C-A	1061			1061			
A-B	40			40			
A-C	1004			1004			

2034 with, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		1.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	1378	100.000
B		✓	172	100.000
C		✓	2016	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	121	1257
	B	0	0	172
	C	1858	158	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	3	3
	B	0	0	7
	C	2	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.40	12.78	0.7	B
C-AB	0.38	12.89	0.6	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	554	0.234	128	0.3	8.440	A
C-AB	119	540	0.220	118	0.3	8.511	A
C-A	1399			1399			
A-B	91			91			
A-C	946			946			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	519	0.298	154	0.4	9.854	A
C-AB	142	503	0.282	142	0.4	9.938	A
C-A	1670			1670			
A-B	109			109			
A-C	1130			1130			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	471	0.402	188	0.7	12.693	B
C-AB	174	453	0.384	173	0.6	12.814	B
C-A	2046			2046			
A-B	133			133			
A-C	1384			1384			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	471	0.402	189	0.7	12.775	B
C-AB	174	453	0.384	174	0.6	12.893	B
C-A	2046			2046			
A-B	133			133			
A-C	1384			1384			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	519	0.298	156	0.4	9.932	A
C-AB	142	503	0.282	143	0.4	10.012	B
C-A	1670			1670			
A-B	109			109			
A-C	1130			1130			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	554	0.234	130	0.3	8.507	A
C-AB	119	540	0.220	119	0.3	8.574	A
C-A	1399			1399			
A-B	91			91			
A-C	946			946			

2034 without, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		16.26	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	2182	100.000
B		✓	282	100.000
C		✓	1544	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	119	2063
	B	0	0	282
	C	1388	156	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	10	5
	B	0	0	11
	C	10	9	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	1.07	206.83	18.3	F
C-AB	0.60	31.09	1.4	D
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	212	422	0.503	208	1.0	16.593	C
C-AB	117	428	0.275	116	0.4	11.493	B
C-A	1045			1045			
A-B	90			90			
A-C	1553			1553			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	367	0.692	249	2.0	29.562	D
C-AB	140	368	0.381	139	0.6	15.654	C
C-A	1248			1248			
A-B	107			107			
A-C	1855			1855			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	310	290	1.070	272	11.6	116.805	F
C-AB	173	288	0.600	169	1.4	29.692	D
C-A	1527			1527			
A-B	131			131			
A-C	2271			2271			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	310	290	1.070	284	18.3	206.832	F
C-AB	173	288	0.600	172	1.4	31.090	D
C-A	1527			1527			
A-B	131			131			
A-C	2271			2271			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	367	0.692	316	2.7	96.357	F
C-AB	140	368	0.381	143	0.6	16.226	C
C-A	1248			1248			
A-B	107			107			
A-C	1855			1855			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	212	422	0.503	219	1.1	18.265	C
C-AB	117	428	0.275	118	0.4	11.675	B
C-A	1045			1045			
A-B	90			90			
A-C	1553			1553			

2034 without, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		3.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	1541	100.000
B		✓	309	100.000
C		✓	2209	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	121	1420
	B	0	0	309
	C	2031	178	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	5	3
	B	0	0	6
	C	3	11	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.77	34.40	3.1	D
C-AB	0.47	16.31	0.9	C
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	233	536	0.434	230	0.7	11.634	B
C-AB	134	513	0.261	133	0.3	9.441	A
C-A	1529			1529			
A-B	91			91			
A-C	1069			1069			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	278	497	0.559	276	1.2	16.152	C
C-AB	160	472	0.339	159	0.5	11.484	B
C-A	1826			1826			
A-B	109			109			
A-C	1277			1277			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	340	442	0.769	333	2.9	31.278	D
C-AB	196	417	0.471	195	0.9	16.115	C
C-A	2236			2236			
A-B	133			133			
A-C	1563			1563			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	340	442	0.769	339	3.1	34.395	D
C-AB	196	417	0.471	196	0.9	16.311	C
C-A	2236			2236			
A-B	133			133			
A-C	1563			1563			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	278	497	0.559	285	1.3	17.507	C
C-AB	160	472	0.339	161	0.5	11.633	B
C-A	1826			1826			
A-B	109			109			
A-C	1277			1277			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	233	536	0.434	235	0.8	12.024	B
C-AB	134	513	0.261	135	0.4	9.541	A
C-A	1529			1529			
A-B	91			91			
A-C	1069			1069			

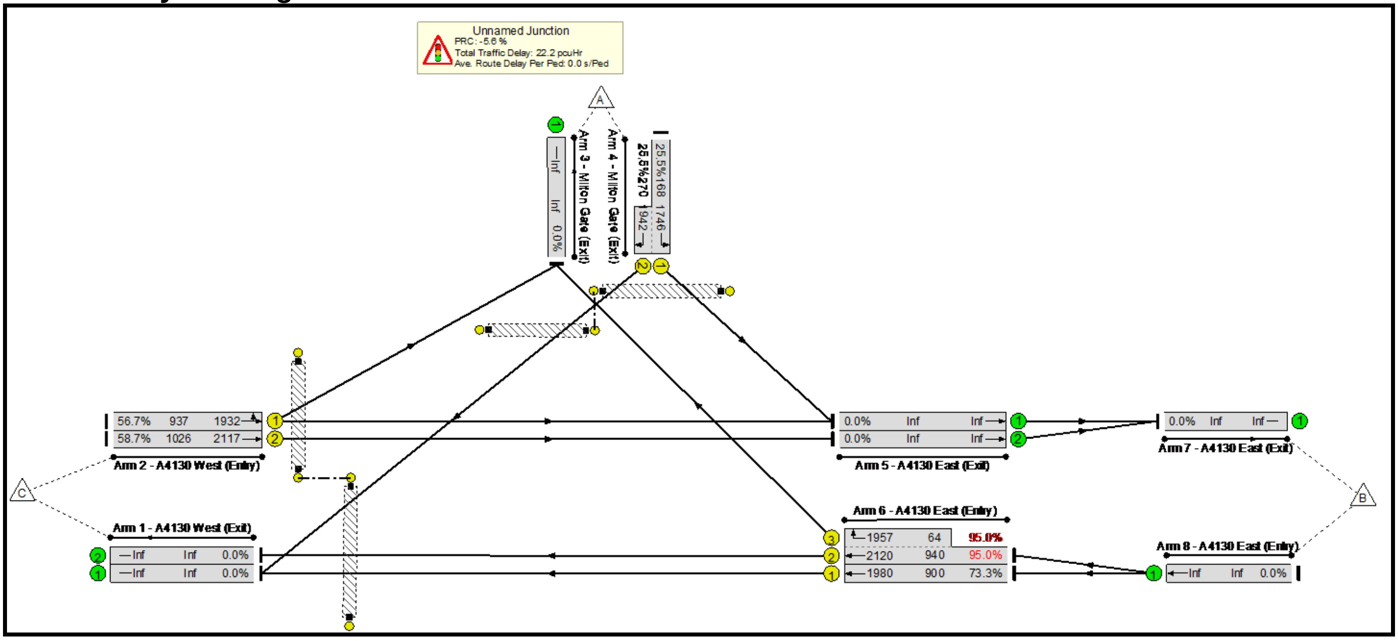
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	OFF 3 Milton Gate Signals_for reporting.lsg3x
Author:	
Company:	
Address:	

Scenario 5: '2024 With AM' (FG5: '2024 With AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

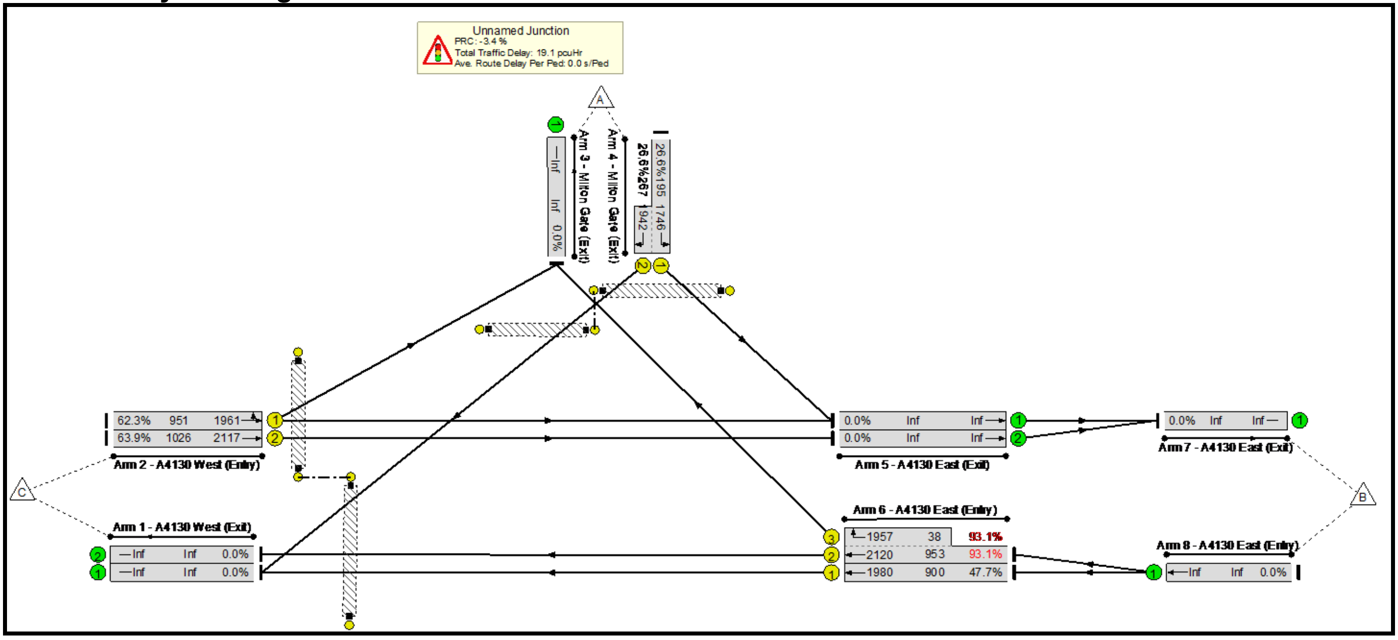


Basic Results Summary
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.0%**	**0**	**0**	**0**	**22.2**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**95.0%**	**0**	**0**	**0**	**22.2**	**-**	**-**
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	531	1932	937	56.7%	-	-	-	2.4	16.5	7.4
2/2	A4130 West (Entry) Ahead	U	A		1	31	-	603	2117	1026	58.7%	-	-	-	2.8	16.5	8.6
4/1+4/2	Milton Gate (Exit) Right Left	U	E D		1	19:9	-	112	1746:1942	168+270	25.5 : 25.5%	-	-	-	0.8	27.0	1.3
6/1	A4130 East (Entry) Ahead	U	B		1	29	-	660	1980	900	73.3%	-	-	-	4.1	22.1	11.3
6/2+6/3	A4130 East (Entry) Ahead Right	U	B C		1	29:7	-	954	2120:1957	940+64	95.0 : 95.0%	-	-	-	12.1	45.6	23.5
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	H		1	6	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -5.6 Total Delay for Signalled Lanes (pcuHr): 22.17 Cycle Time (s): 66
PRC Over All Lanes (%): -5.6 Total Delay Over All Lanes(pcuHr): 22.17

Basic Results Summary
Scenario 6: '2024 With PM' (FG6: '2024 With PM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram



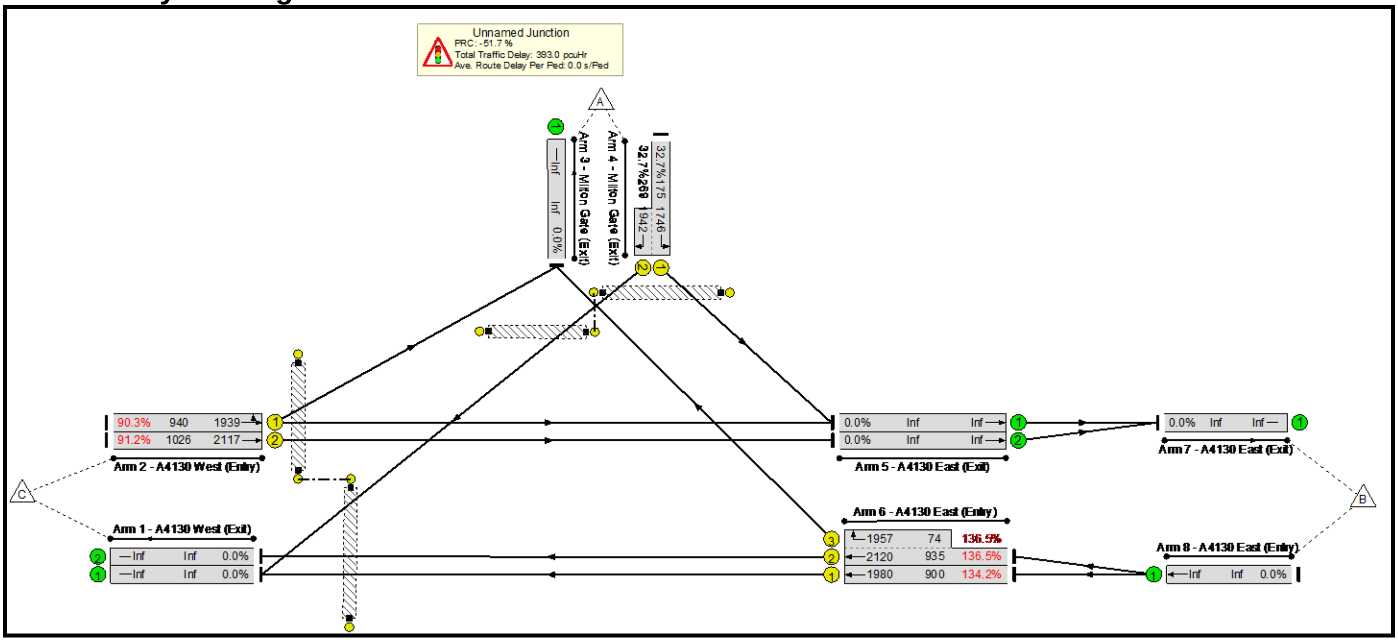
Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**93.1%**	**0**	**0**	**0**	**19.1**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**93.1%**	**0**	**0**	**0**	**19.1**	**-**	**-**
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	592	1961	951	62.3%	-	-	-	2.9	17.5	8.7
2/2	A4130 West (Entry) Ahead	U	A		1	31	-	656	2117	1026	63.9%	-	-	-	3.2	17.5	9.8
4/1+4/2	Milton Gate (Exit) Right Left	U	E D		1	19:9	-	123	1746:1942	195+267	26.6 : 26.6%	-	-	-	0.9	26.6	1.3
6/1	A4130 East (Entry) Ahead	U	B		1	29	-	429	1980	900	47.7%	-	-	-	1.9	16.3	5.8
6/2+6/3	A4130 East (Entry) Ahead Right	U	B C		1	29:7	-	922	2120:1957	953+38	93.1 : 93.1%	-	-	-	10.2	39.7	21.3
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	H		1	6	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -3.4 Total Delay for Signalled Lanes (pcuHr): 19.11 Cycle Time (s): 66
PRC Over All Lanes (%): -3.4 Total Delay Over All Lanes(pcuHr): 19.11

Basic Results Summary
Scenario 7: '2034 Without AM' (FG7: '2034 Without AM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram



Basic Results Summary

Network Results

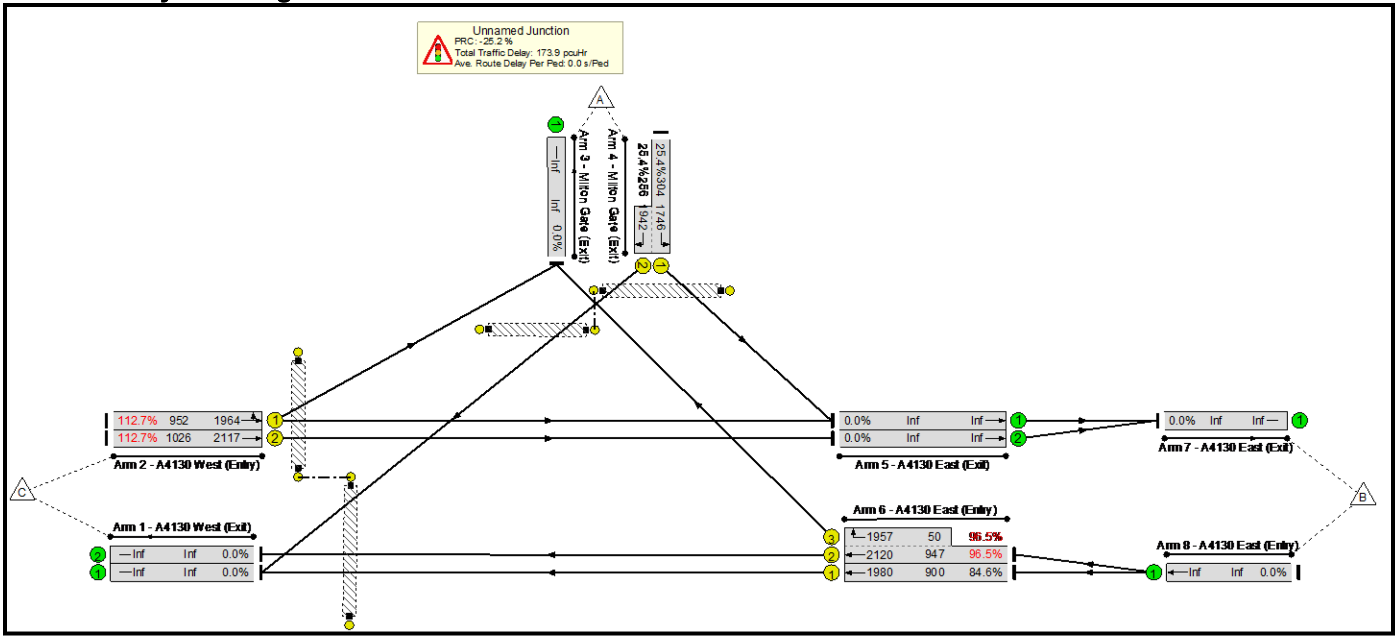
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**136.5%**	**0**	**0**	**0**	**393.0**	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**136.5%**	**0**	**0**	**0**	**393.0**	-	-
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	849	1939	940	90.3%	-	-	-	7.9	33.6	18.4
2/2	A4130 West (Entry) Ahead	U	A		1	31	-	936	2117	1026	91.2%	-	-	-	8.8	33.7	20.3
4/1+4/2	Milton Gate (Exit) Right Left	U	E D		1	19:9	-	145	1746:1942	175+269	32.7 : 32.7%	-	-	-	1.1	27.7	1.7
6/1	A4130 East (Entry) Ahead	U	B		1	29	-	1208	1980	900	134.2%	-	-	-	171.2	510.1	183.7
6/2+6/3	A4130 East (Entry) Ahead Right	U	B C		1	29:7	-	1377	2120:1957	935+74	136.5 : 136.5%	-	-	-	204.0	533.4	219.6
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	H		1	6	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -51.7 Total Delay for Signalled Lanes (pcuHr): 393.03 Cycle Time (s): 66
PRC Over All Lanes (%): -51.7 Total Delay Over All Lanes(pcuHr): 393.03

Basic Results Summary

Scenario 8: '2034 Without PM' (FG8: '2034 Without PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

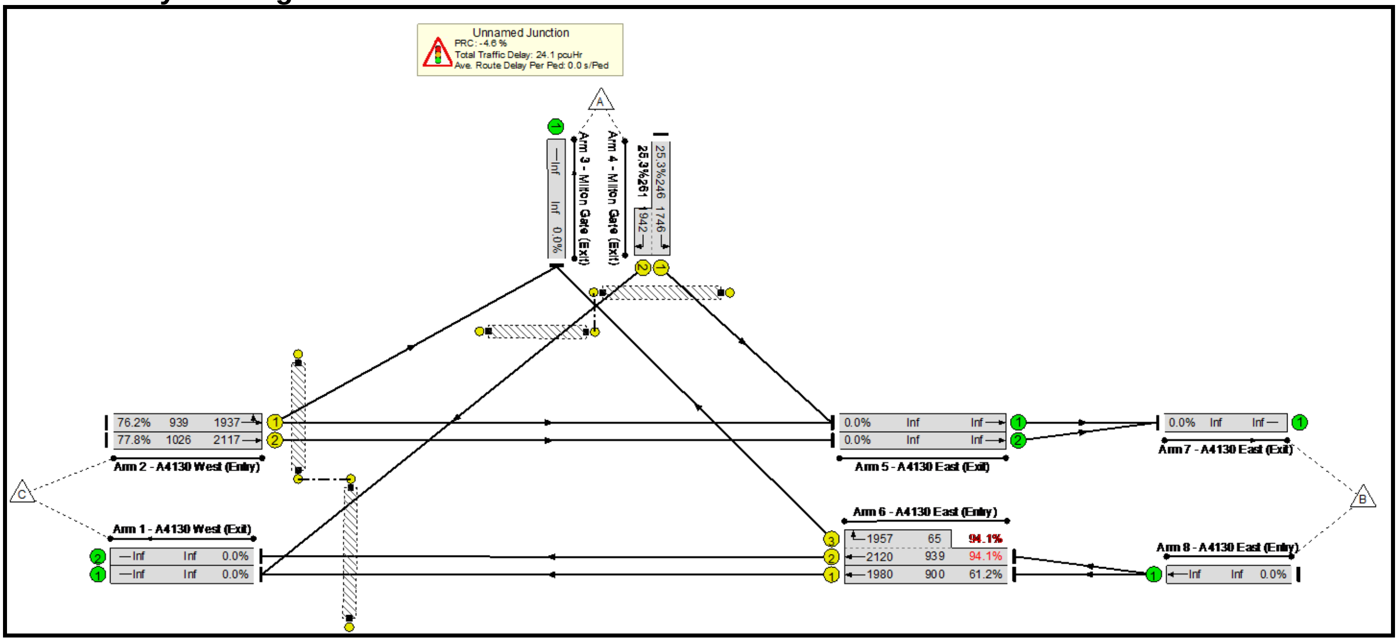
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**112.7%**	**0**	**0**	**0**	**173.9**	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**112.7%**	**0**	**0**	**0**	**173.9**	-	-
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	1073	1964	952	112.7%	-	-	-	73.7	247.2	86.4
2/2	A4130 West (Entry) Ahead	U	A		1	31	-	1157	2117	1026	112.7%	-	-	-	79.3	246.8	93.1
4/1+4/2	Milton Gate (Exit) Right Left	U	E D		1	19:9	-	142	1746:1942	304+256	25.4 : 25.4%	-	-	-	1.0	24.7	1.2
6/1	A4130 East (Entry) Ahead	U	B		1	29	-	761	1980	900	84.6%	-	-	-	6.0	28.4	14.9
6/2+6/3	A4130 East (Entry) Ahead Right	U	B C		1	29:7	-	962	2120:1957	947+50	96.5 : 96.5%	-	-	-	13.9	51.9	25.7
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	H		1	6	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -25.2 Total Delay for Signalled Lanes (pcuHr): 173.85 Cycle Time (s): 66
PRC Over All Lanes (%): -25.2 Total Delay Over All Lanes(pcuHr): 173.85

Basic Results Summary

Scenario 9: '2034 With AM' (FG9: '2034 With AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary
Network Results

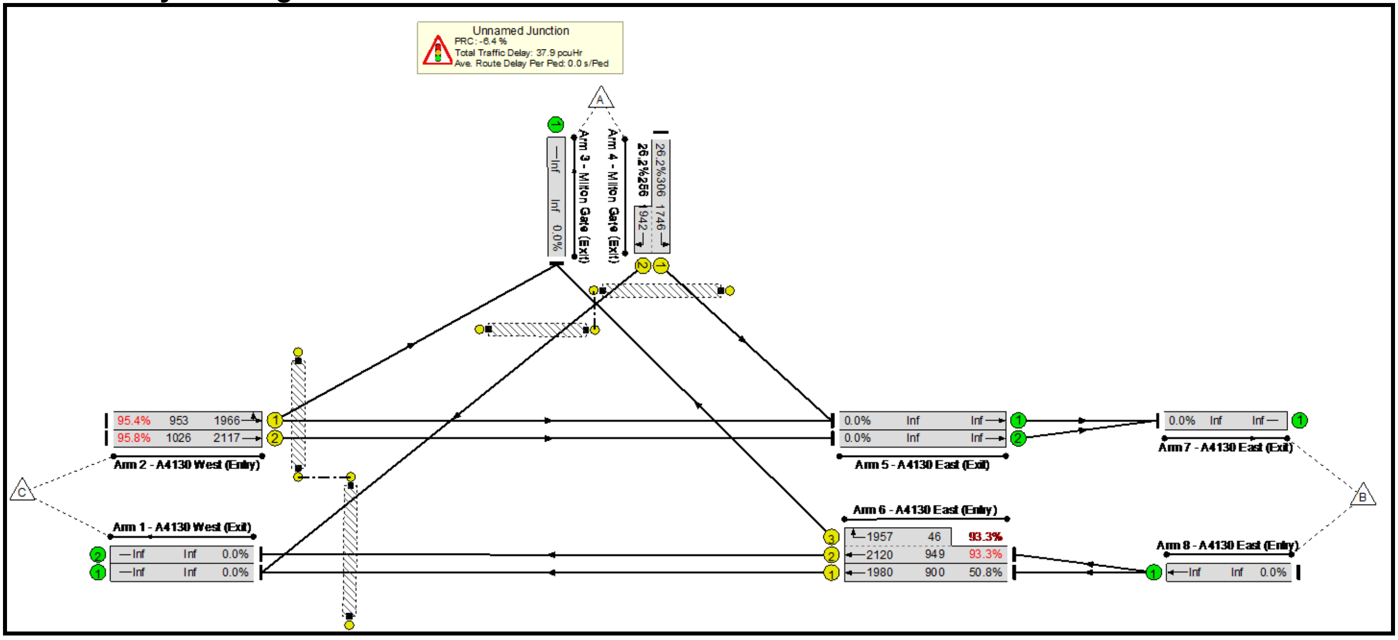
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**94.1%**	**0**	**0**	**0**	**24.1**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**94.1%**	**0**	**0**	**0**	**24.1**	**-**	**-**
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	716	1937	939	76.2%	-	-	-	4.3	21.8	12.1
2/2	A4130 West (Entry) Ahead	U	A		1	31	-	799	2117	1026	77.8%	-	-	-	4.9	21.9	13.7
4/1+4/2	Milton Gate (Exit) Right Left	U	E D		1	19:9	-	128	1746:1942	246+261	25.3 : 25.3%	-	-	-	0.9	25.5	1.2
6/1	A4130 East (Entry) Ahead	U	B		1	29	-	551	1980	900	61.2%	-	-	-	2.9	18.7	8.3
6/2+6/3	A4130 East (Entry) Ahead Right	U	B C		1	29:7	-	945	2120:1957	939+65	94.1 : 94.1%	-	-	-	11.2	42.5	22.2
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	H		1	6	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -4.6 Total Delay for Signalled Lanes (pcuHr): 24.13 Cycle Time (s): 66
PRC Over All Lanes (%): -4.6 Total Delay Over All Lanes(pcuHr): 24.13

Basic Results Summary

Scenario 10: '2034 With PM' (FG10: '2034 With PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**95.8%**	**0**	**0**	**0**	**37.9**	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	**95.8%**	**0**	**0**	**0**	**37.9**	-	-
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	909	1966	953	95.4%	-	-	-	11.8	46.5	23.5
2/2	A4130 West (Entry) Ahead	U	A		1	31	-	983	2117	1026	95.8%	-	-	-	12.7	46.4	25.4
4/1+4/2	Milton Gate (Exit) Right Left	U	E D		1	19:9	-	147	1746:1942	306+256	26.2 : 26.2%	-	-	-	1.0	24.7	1.3
6/1	A4130 East (Entry) Ahead	U	B		1	29	-	457	1980	900	50.8%	-	-	-	2.1	16.8	6.4
6/2+6/3	A4130 East (Entry) Ahead Right	U	B C		1	29:7	-	928	2120:1957	949+46	93.3 : 93.3%	-	-	-	10.4	40.2	21.5
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	H		1	6	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -6.4 Total Delay for Signalled Lanes (pcuHr): 37.95 Cycle Time (s): 66
PRC Over All Lanes (%): -6.4 Total Delay Over All Lanes(pcuHr): 37.95

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

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

Filename: OFF 4 Junction -A4130_Mendip Heights_A415_2020.j9
Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF4 - Junction 19-A4130_Mendip Heights_A415
Report generation date: 09/09/2021 13:49:00

»2020, AM
»2020, PM

Summary of junction performance

	AM					PM				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
	2020									
Arm 1	D1	1.0	8.22	0.49	A	D2	1.9	10.28	0.66	B
Arm 2		1.2	5.91	0.54	A		2.6	10.56	0.73	B
Arm 3		0.1	5.27	0.08	A		0.1	7.00	0.10	A
Arm 4		1.6	4.93	0.62	A		0.8	3.02	0.43	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	19/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	5.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A4130 (N)	
2	B4493	
3	Mendip Heights	
4	A4130 (W)	

Roundabout Geometry

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1	3.65	6.00	6.5	20.0	35.0	18.0	
2	3.56	6.50	11.2	40.0	35.0	23.0	
3	3.44	6.50	5.3	30.0	35.0	19.0	
4	3.85	9.46	44.3	16.0	35.0	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.623	1497
2	0.654	1640
3	0.616	1442
4	0.784	2364

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	383	100.000
2		✓	660	100.000
3		✓	56	100.000
4		✓	1091	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	3	116	5	259
	2	261	0	9	390
	3	12	22	0	22
	4	445	631	15	0

Vehicle Mix

HV %s

		To			
		1	2	3	4
From	1	21	1	6	27
	2	5	0	0	3
	3	7	0	0	1
	4	15	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.49	8.22	1.0	A
2	0.54	5.91	1.2	A
3	0.08	5.27	0.1	A
4	0.62	4.93	1.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	288	501	987	0.292	287	0.4	5.130	A
2	497	211	1414	0.351	495	0.5	3.909	A
3	42	684	959	0.044	42	0.0	3.925	A
4	821	223	2010	0.409	819	0.7	3.016	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	600	933	0.369	344	0.6	6.100	A
2	593	253	1381	0.430	592	0.7	4.562	A
3	50	819	868	0.058	50	0.1	4.400	A
4	981	268	1977	0.496	980	1.0	3.606	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	422	734	860	0.490	420	0.9	8.155	A
2	727	309	1336	0.544	725	1.2	5.873	A
3	62	1003	746	0.083	62	0.1	5.258	A
4	1201	327	1931	0.622	1199	1.6	4.896	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	422	735	859	0.491	422	1.0	8.224	A
2	727	310	1335	0.544	727	1.2	5.913	A
3	62	1005	744	0.083	62	0.1	5.272	A
4	1201	328	1931	0.622	1201	1.6	4.935	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	602	932	0.369	346	0.6	6.158	A
2	593	255	1379	0.430	595	0.8	4.600	A
3	50	823	866	0.058	50	0.1	4.417	A
4	981	269	1976	0.496	983	1.0	3.636	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	288	504	986	0.293	289	0.4	5.173	A
2	497	213	1412	0.352	498	0.5	3.939	A
3	42	689	956	0.044	42	0.0	3.940	A
4	821	225	2009	0.409	823	0.7	3.039	A

2020, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	7.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	629	100.000
2		✓	817	100.000
3		✓	50	100.000
4		✓	816	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	12	158	28	431
	2	116	0	22	679
	3	13	21	0	16
	4	294	498	24	0

Vehicle Mix

HV %s

		To			
		1	2	3	4
From	1	1	4	0	9
	2	3	0	0	1
	3	0	0	0	0
	4	14	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.66	10.28	1.9	B
2	0.73	10.56	2.6	B
3	0.10	7.00	0.1	A
4	0.43	3.02	0.8	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	474	408	1155	0.410	471	0.7	5.241	A
2	615	371	1361	0.452	612	0.8	4.782	A
3	38	927	849	0.044	37	0.0	4.436	A
4	614	121	2133	0.288	613	0.4	2.366	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	565	488	1108	0.511	564	1.0	6.609	A
2	734	444	1310	0.561	733	1.3	6.217	A
3	45	1110	731	0.061	45	0.1	5.245	A
4	734	145	2115	0.347	733	0.5	2.605	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	693	597	1043	0.664	689	1.9	10.073	B
2	900	542	1241	0.725	894	2.5	10.225	B
3	55	1356	574	0.096	55	0.1	6.932	A
4	898	177	2091	0.430	898	0.7	3.016	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	693	598	1042	0.664	692	1.9	10.275	B
2	900	545	1240	0.726	899	2.6	10.559	B
3	55	1363	570	0.097	55	0.1	6.996	A
4	898	178	2090	0.430	898	0.8	3.020	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	565	489	1107	0.511	569	1.1	6.737	A
2	734	448	1307	0.562	740	1.3	6.397	A
3	45	1120	725	0.062	45	0.1	5.297	A
4	734	147	2114	0.347	734	0.5	2.612	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	474	409	1154	0.410	475	0.7	5.311	A
2	615	374	1359	0.453	617	0.8	4.865	A
3	38	935	844	0.045	38	0.0	4.467	A
4	614	122	2132	0.288	615	0.4	2.374	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: OFF 4 JunRedesigned_V1.j9
Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF4 - Junction 19-A4130_Mendip Heights_A415 \Redesign
Report generation date: 28/07/2021 11:18:28

Summary of junction performance

	AM					PM				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
2024 with										
Arm 1	D3	0.3	4.34	0.24	A	D4	1.1	6.11	0.52	A
Arm 2		2.7	8.04	0.74	A		2.8	8.89	0.74	A
Arm 3		0.2	6.14	0.14	A		0.1	5.00	0.07	A
Arm 4		0.7	3.18	0.41	A		0.4	2.23	0.29	A
2024 without										
Arm 1	D5	3.4	14.11	0.78	B	D6	6.2	23.00	0.87	C
Arm 2		31.0	80.86	1.02	F		33.1	84.08	1.02	F
Arm 3		0.2	6.70	0.14	A		0.1	5.97	0.09	A
Arm 4		1.3	4.53	0.56	A		1.1	3.61	0.52	A
2034 with										
Arm 1	D7	0.5	5.22	0.32	A	D8	1.1	6.57	0.53	A
Arm 2		2.6	7.96	0.73	A		1.2	4.89	0.54	A
Arm 3		0.2	6.43	0.20	A		0.1	4.17	0.08	A
Arm 4		1.4	4.82	0.58	A		0.5	2.41	0.34	A
2034 without										
Arm 1	D9	144.0	464.89	1.27	F	D10	228.5	746.89	1.42	F
Arm 2		458.5	1359.44	1.47	F		260.7	705.62	1.29	F
Arm 3		0.3	7.22	0.22	A		0.2	6.74	0.14	A
Arm 4		11.5	27.46	0.93	D		7.9	15.81	0.90	C

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

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

File summary

File Description

Title	
Location	
Site number	
Date	19/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2024 with, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	5.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A4130 (N)	
2	B4493	
3	Mendip Heights	
4	A4130 (W)	

Roundabout Geometry

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1	3.58	6.59	9.0	65.6	39.0	16.0	
2	3.73	7.16	12.7	99.0	39.0	19.0	
3	3.21	6.56	7.9	30.6	39.0	17.0	
4	2.66	10.12	82.3	31.5	39.0	26.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.660	1652
2	0.691	1818
3	0.621	1489
4	0.842	2639

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	239	100.000
2		✓	1127	100.000
3		✓	84	100.000
4		✓	723	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	2	151	79	7
	2	575	0	15	537
	3	22	27	0	35
	4	204	505	14	0

Vehicle Mix

HV %s

		To			
		1	2	3	4
From	1	1	5	30	14
	2	2	0	0	2
	3	5	5	0	3
	4	12	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.24	4.34	0.3	A
2	0.74	8.04	2.7	A
3	0.14	6.14	0.2	A
4	0.41	3.18	0.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	180	410	1208	0.149	179	0.2	3.499	A
2	848	77	1718	0.494	844	1.0	4.102	A
3	63	840	918	0.069	63	0.1	4.207	A
4	544	469	2105	0.259	543	0.3	2.303	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	215	490	1159	0.185	215	0.2	3.812	A
2	1013	92	1705	0.594	1011	1.4	5.170	A
3	76	1006	818	0.092	75	0.1	4.850	A
4	650	562	2030	0.320	649	0.5	2.608	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	263	600	1092	0.241	263	0.3	4.336	A
2	1241	112	1688	0.735	1236	2.7	7.871	A
3	92	1229	682	0.136	92	0.2	6.106	A
4	796	687	1928	0.413	795	0.7	3.173	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	263	601	1092	0.241	263	0.3	4.342	A
2	1241	112	1688	0.735	1241	2.7	8.036	A
3	92	1234	679	0.136	92	0.2	6.138	A
4	796	689	1926	0.413	796	0.7	3.184	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	215	492	1158	0.185	215	0.2	3.817	A
2	1013	92	1705	0.594	1018	1.5	5.274	A
3	76	1013	814	0.093	76	0.1	4.880	A
4	650	565	2027	0.321	651	0.5	2.618	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	180	411	1207	0.149	180	0.2	3.506	A
2	848	77	1718	0.494	850	1.0	4.160	A
3	63	846	915	0.069	63	0.1	4.229	A
4	544	472	2102	0.259	545	0.4	2.314	A

2024 with, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	6.29	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	568	100.000
2		✓	1043	100.000
3		✓	53	100.000
4		✓	612	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	1	264	283	20
	2	267	0	35	741
	3	17	16	0	20
	4	61	532	19	0

Vehicle Mix

HV %s

		To			
		1	2	3	4
From	1	0	1	2	1
	2	1	0	0	1
	3	0	0	0	0
	4	13	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.52	6.11	1.1	A
2	0.74	8.89	2.8	A
3	0.07	5.00	0.1	A
4	0.29	2.23	0.4	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	428	426	1345	0.318	426	0.5	3.906	A
2	785	242	1632	0.481	782	0.9	4.217	A
3	40	771	1006	0.040	40	0.0	3.726	A
4	461	226	2376	0.194	460	0.2	1.879	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	511	509	1290	0.396	510	0.6	4.610	A
2	938	290	1598	0.587	936	1.4	5.417	A
3	48	923	910	0.052	48	0.1	4.172	A
4	550	270	2339	0.235	550	0.3	2.012	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	625	624	1214	0.515	624	1.0	6.080	A
2	1148	355	1553	0.739	1143	2.7	8.663	A
3	58	1128	782	0.075	58	0.1	4.973	A
4	674	330	2289	0.294	673	0.4	2.227	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	625	624	1214	0.515	625	1.1	6.113	A
2	1148	356	1553	0.740	1148	2.8	8.888	A
3	58	1133	779	0.075	58	0.1	4.995	A
4	674	331	2288	0.294	674	0.4	2.229	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	511	510	1290	0.396	512	0.7	4.639	A
2	938	291	1598	0.587	943	1.4	5.546	A
3	48	930	906	0.053	48	0.1	4.197	A
4	550	272	2337	0.235	551	0.3	2.015	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	428	427	1345	0.318	428	0.5	3.932	A
2	785	244	1631	0.482	787	0.9	4.279	A
3	40	777	1002	0.040	40	0.0	3.740	A
4	461	227	2374	0.194	461	0.2	1.883	A

2024 without, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	36.57	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	809	100.000
2		✓	1215	100.000
3		✓	82	100.000
4		✓	920	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	38	296	466	9
	2	633	3	13	566
	3	26	22	0	34
	4	467	440	13	0

Vehicle Mix

HV %s

		To			
		1	2	3	4
From	1	2	5	19	1
	2	3	0	0	2
	3	2	1	0	3
	4	14	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.78	14.11	3.4	B
2	1.02	80.86	31.0	F
3	0.14	6.70	0.2	A
4	0.56	4.53	1.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	609	359	1246	0.489	605	0.9	5.588	A
2	915	394	1463	0.625	908	1.6	6.415	A
3	62	934	876	0.070	61	0.1	4.417	A
4	693	540	1992	0.348	691	0.5	2.761	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	727	429	1203	0.605	725	1.5	7.496	A
2	1092	471	1402	0.779	1085	3.3	11.146	B
3	74	1116	763	0.097	74	0.1	5.224	A
4	827	645	1908	0.433	826	0.8	3.324	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	891	525	1145	0.778	884	3.3	13.415	B
2	1338	575	1320	1.013	1269	20.5	45.052	E
3	90	1307	644	0.140	90	0.2	6.497	A
4	1013	759	1818	0.557	1011	1.2	4.448	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	891	526	1144	0.778	890	3.4	14.107	B
2	1338	579	1317	1.016	1296	31.0	80.857	F
3	90	1334	627	0.144	90	0.2	6.705	A
4	1013	773	1807	0.561	1013	1.3	4.534	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	727	431	1202	0.605	735	1.6	7.818	A
2	1092	478	1397	0.782	1201	3.9	27.130	D
3	74	1231	691	0.107	74	0.1	5.832	A
4	827	706	1860	0.445	829	0.8	3.498	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	609	360	1245	0.489	611	1.0	5.706	A
2	915	398	1460	0.627	923	1.7	6.812	A
3	62	949	867	0.071	62	0.1	4.473	A
4	693	548	1985	0.349	694	0.5	2.791	A

2024 without, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	39.54	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	928	100.000
2		✓	1232	100.000
3		✓	51	100.000
4		✓	993	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	19	354	533	22
	2	426	3	29	774
	3	18	14	0	19
	4	435	537	21	0

Vehicle Mix

HV %s

		To			
		1	2	3	4
From	1	0	3	6	1
	2	1	0	0	1
	3	0	0	0	0
	4	10	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.87	23.00	6.2	C
2	1.02	84.08	33.1	F
3	0.09	5.97	0.1	A
4	0.52	3.61	1.1	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	699	432	1302	0.537	694	1.1	5.882	A
2	928	445	1479	0.627	921	1.6	6.376	A
3	38	930	906	0.042	38	0.0	4.146	A
4	748	359	2214	0.338	746	0.5	2.449	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	834	516	1247	0.669	831	2.0	8.578	A
2	1108	533	1416	0.782	1101	3.4	11.169	B
3	46	1111	792	0.058	46	0.1	4.821	A
4	893	429	2157	0.414	892	0.7	2.844	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1022	632	1173	0.871	1007	5.8	20.028	C
2	1356	646	1334	1.016	1285	21.3	45.803	E
3	56	1299	675	0.083	56	0.1	5.818	A
4	1093	503	2097	0.521	1092	1.1	3.576	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1022	633	1172	0.871	1020	6.2	22.999	C
2	1356	654	1328	1.021	1309	33.1	84.082	F
3	56	1324	659	0.085	56	0.1	5.967	A
4	1093	512	2090	0.523	1093	1.1	3.610	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	834	518	1246	0.669	851	2.1	9.458	A
2	1108	545	1407	0.787	1224	4.0	29.878	D
3	46	1232	717	0.064	46	0.1	5.370	A
4	893	472	2122	0.421	894	0.7	2.934	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	699	433	1301	0.537	702	1.2	6.054	A
2	928	450	1476	0.629	937	1.7	6.790	A
3	38	946	896	0.043	38	0.0	4.197	A
4	748	365	2209	0.338	748	0.5	2.466	A

2034 with, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	6.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	292	100.000
2		✓	1104	100.000
3		✓	126	100.000
4		✓	929	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	11	186	83	12
	2	728	1	12	363
	3	66	31	0	29
	4	287	619	23	0

Vehicle Mix

HV %s

		To			
		1	2	3	4
From	1	1	4	37	11
	2	1	0	1	3
	3	2	0	0	5
	4	9	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.32	5.22	0.5	A
2	0.73	7.96	2.6	A
3	0.20	6.43	0.2	A
4	0.58	4.82	1.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	220	506	1152	0.191	219	0.2	3.852	A
2	831	97	1706	0.487	827	0.9	4.081	A
3	95	836	941	0.101	94	0.1	4.253	A
4	699	627	2009	0.348	697	0.5	2.740	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	263	605	1093	0.240	262	0.3	4.332	A
2	992	116	1690	0.587	991	1.4	5.136	A
3	113	1001	839	0.135	113	0.2	4.960	A
4	835	751	1908	0.438	834	0.8	3.349	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	321	740	1012	0.318	321	0.5	5.201	A
2	1216	142	1668	0.729	1211	2.6	7.797	A
3	139	1223	701	0.198	138	0.2	6.391	A
4	1023	918	1773	0.577	1021	1.3	4.772	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	321	742	1011	0.318	321	0.5	5.217	A
2	1216	142	1667	0.729	1215	2.6	7.956	A
3	139	1227	698	0.199	139	0.2	6.431	A
4	1023	921	1770	0.578	1023	1.4	4.818	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	263	608	1092	0.240	263	0.3	4.348	A
2	992	116	1689	0.588	997	1.4	5.239	A
3	113	1007	835	0.136	114	0.2	4.997	A
4	835	756	1904	0.439	837	0.8	3.381	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	220	508	1151	0.191	220	0.2	3.868	A
2	831	97	1705	0.487	833	1.0	4.137	A
3	95	841	937	0.101	95	0.1	4.276	A
4	699	632	2005	0.349	700	0.5	2.762	A

2034 with, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	4.46	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	551	100.000
2		✓	789	100.000
3		✓	69	100.000
4		✓	710	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	4	338	180	29
	2	265	1	31	492
	3	25	25	0	19
	4	88	594	28	0

Vehicle Mix

HV %s

		To			
		1	2	3	4
From	1	0	1	3	0
	2	1	0	0	2
	3	0	0	0	0
	4	10	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.53	6.57	1.1	A
2	0.54	4.89	1.2	A
3	0.08	4.17	0.1	A
4	0.34	2.41	0.5	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	487	1304	0.318	413	0.5	4.032	A
2	594	181	1664	0.357	592	0.6	3.350	A
3	52	593	1115	0.047	52	0.0	3.385	A
4	535	240	2367	0.226	533	0.3	1.963	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	495	582	1241	0.399	495	0.7	4.818	A
2	709	216	1639	0.433	708	0.8	3.865	A
3	62	710	1041	0.060	62	0.1	3.675	A
4	638	287	2328	0.274	638	0.4	2.130	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	607	713	1155	0.525	605	1.1	6.528	A
2	869	265	1605	0.541	867	1.2	4.864	A
3	76	869	941	0.081	76	0.1	4.161	A
4	782	352	2274	0.344	781	0.5	2.411	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	607	713	1154	0.526	607	1.1	6.574	A
2	869	265	1605	0.541	869	1.2	4.888	A
3	76	871	940	0.081	76	0.1	4.166	A
4	782	352	2274	0.344	782	0.5	2.412	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	495	583	1240	0.399	497	0.7	4.853	A
2	709	217	1638	0.433	711	0.8	3.887	A
3	62	713	1040	0.060	62	0.1	3.685	A
4	638	288	2327	0.274	639	0.4	2.134	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	488	1303	0.318	416	0.5	4.059	A
2	594	182	1663	0.357	595	0.6	3.374	A
3	52	596	1113	0.047	52	0.0	3.394	A
4	535	241	2366	0.226	535	0.3	1.966	A

2034 without, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	628.84	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	1149	100.000
2		✓	1680	100.000
3		✓	126	100.000
4		✓	1454	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	70	410	656	13
	2	973	9	21	677
	3	52	23	0	51
	4	771	660	23	0

Vehicle Mix

HV %s

		To			
		1	2	3	4
From	1	2	4	18	15
	2	2	0	0	2
	3	3	0	0	4
	4	15	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	1.27	464.89	144.0	F
2	1.47	1359.44	458.5	F
3	0.22	7.22	0.3	A
4	0.93	27.46	11.5	D

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	865	535	1148	0.753	853	2.9	11.797	B
2	1265	566	1338	0.945	1222	10.6	25.532	D
3	95	1269	666	0.142	94	0.2	6.290	A
4	1095	823	1761	0.622	1088	1.6	5.304	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1033	639	1085	0.952	1002	10.7	34.625	D
2	1510	665	1260	1.198	1255	74.5	132.105	F
3	113	1311	640	0.177	113	0.2	6.834	A
4	1307	862	1730	0.756	1302	3.0	8.297	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1265	771	1004	1.260	1000	77.0	168.837	F
2	1850	668	1258	1.470	1258	222.5	430.499	F
3	139	1314	638	0.218	138	0.3	7.207	A
4	1601	879	1717	0.933	1572	10.1	21.624	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1265	782	997	1.268	997	144.0	397.514	F
2	1850	666	1260	1.469	1259	370.0	862.699	F
3	139	1316	637	0.218	139	0.3	7.224	A
4	1601	880	1716	0.933	1595	11.5	27.456	D

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1033	657	1074	0.962	1066	135.7	464.887	F
2	1510	707	1227	1.231	1227	440.8	1201.430	F
3	113	1289	653	0.173	114	0.2	6.672	A
4	1307	850	1739	0.752	1340	3.1	9.727	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	865	541	1145	0.756	1136	67.9	324.330	F
2	1265	748	1194	1.059	1194	458.5	1359.439	F
3	95	1261	670	0.142	95	0.2	6.258	A
4	1095	824	1760	0.622	1101	1.7	5.510	A

2034 without, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	445.42	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	1209	100.000
2		✓	1593	100.000
3		✓	82	100.000
4		✓	1716	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	30	467	687	25
	2	533	6	32	1022
	3	32	18	0	32
	4	811	871	34	0

Vehicle Mix

HV %s

		To			
		1	2	3	4
From	1	1	3	5	2
	2	1	0	0	1
	3	0	0	0	0
	4	6	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	1.42	746.89	228.5	F
2	1.29	705.62	260.7	F
3	0.14	6.74	0.2	A
4	0.90	15.81	7.9	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	910	696	1142	0.797	896	3.6	13.903	B
2	1199	575	1389	0.864	1177	5.6	15.662	C
3	62	1194	740	0.083	61	0.1	5.300	A
4	1292	458	2177	0.593	1286	1.4	4.014	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1087	832	1055	1.030	1017	21.1	57.034	F
2	1432	655	1332	1.075	1309	36.4	69.012	F
3	74	1329	656	0.112	74	0.1	6.179	A
4	1543	513	2132	0.723	1538	2.6	6.014	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1331	1011	940	1.415	939	119.0	278.237	F
2	1754	614	1362	1.288	1361	134.7	233.555	F
3	90	1376	626	0.144	90	0.2	6.712	A
4	1889	539	2111	0.895	1870	7.4	13.919	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1331	1020	934	1.424	934	218.2	626.234	F
2	1754	611	1364	1.286	1363	232.4	495.168	F
3	90	1379	625	0.145	90	0.2	6.735	A
4	1889	540	2110	0.895	1887	7.9	15.806	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1087	846	1046	1.039	1046	228.5	746.892	F
2	1432	673	1319	1.086	1319	260.7	684.399	F
3	74	1340	649	0.114	74	0.1	6.261	A
4	1543	517	2129	0.725	1564	2.7	6.596	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	910	702	1138	0.800	1133	172.8	638.165	F
2	1199	721	1284	0.934	1279	240.7	705.620	F
3	62	1305	671	0.092	62	0.1	5.915	A
4	1292	499	2144	0.603	1297	1.5	4.273	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: OFF 5-A4130_Milton Road_Power Station Roundabout_2020.j9
Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF5 - Junction 20-A4130_Milton Road_Power Station Roundabout
Report generation date: 09/09/2021 13:51:04

»2020, AM
»2020, PM

Summary of junction performance

	AM					PM				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
	2020									
Arm 1	D1	3.6	15.26	0.79	C	D2	1.5	9.13	0.61	A
Arm 2		2.5	24.45	0.72	C		1.2	12.08	0.54	B
Arm 3		1.4	6.52	0.59	A		0.4	3.06	0.29	A
Arm 4		1.2	11.58	0.56	B		76.9	278.37	1.16	F
Arm 5		0.1	7.30	0.08	A		0.1	8.93	0.12	A

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

File summary

File Description

Title	
Location	
Site number	
Date	19/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	13.07	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A4130 (N)	
2	Basil Hill Road	
3	A4130 (S)	
4	Milton Road	
5	Access Road	

Roundabout Geometry

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1	3.65	6.23	4.7	14.0	39.0	23.0	
2	3.05	4.20	3.3	16.0	39.0	24.0	
3	3.65	12.00	23.4	12.0	39.0	38.0	
4	3.50	3.50	0.0	17.0	39.0	21.0	
5	2.97	5.65	4.4	10.0	39.0	26.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.584	1393
2	0.526	1098
3	0.716	2149
4	0.528	1084
5	0.520	1135

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	804	100.000
2		✓	344	100.000
3		✓	715	100.000
4		✓	352	100.000
5		✓	39	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	55	258	481	10
	2	80	0	19	238	7
	3	368	22	0	309	16
	4	134	105	98	0	15
	5	8	5	11	15	0

Vehicle Mix

HV %s

		To				
		1	2	3	4	5
From	1	0	7	21	1	5
	2	4	0	39	3	0
	3	13	55	0	4	23
	4	8	9	7	0	5
	5	14	3	38	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.79	15.26	3.6	C
2	0.72	24.45	2.5	C
3	0.59	6.52	1.4	A
4	0.56	11.58	1.2	B
5	0.08	7.30	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	605	191	1175	0.515	601	1.0	6.234	A
2	259	653	691	0.375	257	0.6	8.246	A
3	538	621	1533	0.351	536	0.5	3.605	A
4	265	377	796	0.333	263	0.5	6.729	A
5	29	604	678	0.043	29	0.0	5.548	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	723	229	1151	0.628	720	1.6	8.308	A
2	309	782	621	0.498	308	1.0	11.446	B
3	643	744	1451	0.443	642	0.8	4.441	A
4	316	451	755	0.419	316	0.7	8.177	A
5	35	724	618	0.057	35	0.1	6.173	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	885	280	1120	0.790	878	3.5	14.425	B
2	379	954	528	0.717	373	2.3	22.511	C
3	787	905	1345	0.585	785	1.4	6.400	A
4	388	551	700	0.554	386	1.2	11.391	B
5	43	884	538	0.080	43	0.1	7.265	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	885	282	1119	0.791	885	3.6	15.258	C
2	379	961	524	0.723	378	2.5	24.448	C
3	787	914	1339	0.588	787	1.4	6.519	A
4	388	554	698	0.555	387	1.2	11.581	B
5	43	888	536	0.080	43	0.1	7.298	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	723	231	1150	0.628	730	1.7	8.726	A
2	309	793	615	0.503	315	1.0	12.207	B
3	643	757	1443	0.446	645	0.8	4.528	A
4	316	455	753	0.420	318	0.7	8.323	A
5	35	730	615	0.057	35	0.1	6.210	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	605	193	1173	0.516	608	1.1	6.394	A
2	259	660	687	0.377	261	0.6	8.477	A
3	538	629	1527	0.352	539	0.5	3.646	A
4	265	380	795	0.334	266	0.5	6.823	A
5	29	609	675	0.043	29	0.0	5.574	A

2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	112.23	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	549	100.000
2		✓	318	100.000
3		✓	433	100.000
4		✓	892	100.000
5		✓	48	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	70	340	134	5
	2	59	0	57	197	5
	3	260	8	0	155	10
	4	367	299	217	0	9
	5	6	12	15	15	0

Vehicle Mix

HV %s

		To				
		1	2	3	4	5
From	1	0	1	10	1	26
	2	0	0	6	4	0
	3	12	54	0	4	9
	4	1	2	2	0	5
	5	22	2	9	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.61	9.13	1.5	A
2	0.54	12.08	1.2	B
3	0.29	3.06	0.4	A
4	1.16	278.37	76.9	F
5	0.12	8.93	0.1	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	413	420	1069	0.387	411	0.6	5.452	A
2	239	542	769	0.311	238	0.4	6.754	A
3	326	310	1749	0.186	325	0.2	2.527	A
4	672	260	917	0.732	661	2.6	13.563	B
5	36	900	609	0.059	36	0.1	6.278	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	494	499	1024	0.482	492	0.9	6.753	A
2	286	647	712	0.401	285	0.7	8.411	A
3	389	372	1708	0.228	389	0.3	2.730	A
4	802	312	888	0.903	785	6.9	30.600	D
5	43	1070	522	0.082	43	0.1	7.512	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	604	540	1001	0.604	602	1.5	8.979	A
2	350	762	650	0.539	348	1.1	11.862	B
3	477	455	1652	0.289	476	0.4	3.061	A
4	982	381	848	1.159	838	42.9	120.882	F
5	53	1189	460	0.115	53	0.1	8.839	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	604	544	998	0.606	604	1.5	9.134	A
2	350	766	648	0.540	350	1.2	12.082	B
3	477	457	1651	0.289	477	0.4	3.065	A
4	982	382	847	1.159	846	76.9	262.744	F
5	53	1197	456	0.116	53	0.1	8.928	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	494	552	995	0.496	496	1.0	7.242	A
2	286	672	699	0.409	288	0.7	8.789	A
3	389	375	1705	0.228	390	0.3	2.736	A
4	802	313	887	0.904	876	58.4	278.374	F
5	43	1162	477	0.090	43	0.1	8.309	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	413	553	994	0.416	414	0.7	6.218	A
2	239	601	738	0.324	240	0.5	7.243	A
3	326	313	1747	0.187	326	0.2	2.536	A
4	672	262	917	0.733	890	3.7	127.078	F
5	36	1128	496	0.073	36	0.1	7.839	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: OFF 5 JunRedesigned_V1.j9
Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF5 - Junction 20-A4130_Milton Road_Power Station Roundabout\Redesign
Report generation date: 28/07/2021 11:29:58

Summary of junction performance

	AM					PM				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
	2024 with									
Arm 1	D3	0.3	2.50	0.22	A	D4	0.3	2.77	0.23	A
Arm 2		0.7	7.86	0.42	A		0.3	6.55	0.26	A
Arm 3		0.5	5.99	0.33	A		0.2	3.79	0.18	A
Arm 4		0.3	3.55	0.25	A		1.4	5.83	0.59	A
Arm 5		0.1	2.84	0.10	A		0.1	3.39	0.08	A
	2024 without									
Arm 1	D5	2.0	5.96	0.67	A	D6	0.9	4.14	0.46	A
Arm 2		2.4	45.16	0.73	E		0.3	10.88	0.25	B
Arm 3		2.5	16.30	0.72	C		1.1	6.91	0.53	A
Arm 4		0.9	6.24	0.49	A		4.7	16.74	0.83	C
Arm 5		0.1	4.57	0.05	A		0.1	5.37	0.08	A
	2034 with									
Arm 1	D7	0.3	2.77	0.26	A	D8	0.2	2.72	0.15	A
Arm 2		1.2	10.98	0.54	B		0.6	7.88	0.37	A
Arm 3		0.6	6.89	0.37	A		0.2	3.95	0.15	A
Arm 4		0.5	4.21	0.34	A		1.8	6.76	0.65	A
Arm 5		0.2	3.32	0.19	A		0.2	3.80	0.18	A
	2034 without									
Arm 1	D9	12.4	31.30	0.94	D	D10	2.3	7.49	0.70	A
Arm 2		121.7	6101.93	38.01	F		1.3	34.70	0.58	D
Arm 3		54.0	214.29	1.10	F		17.6	71.05	0.98	F
Arm 4		2.0	11.24	0.67	B		56.6	172.43	1.11	F
Arm 5		0.3	6.28	0.25	A		0.4	7.87	0.31	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	19/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2024 with, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	5.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A4130 (N)	
2	Basil Hill Road	
3	A4130 (S)	
4	Milton Road	
5	Access Road	

Roundabout Geometry

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1	3.65	10.06	87.8	5.3	37.0	42.5	
2	2.91	4.69	4.6	19.3	37.0	16.0	
3	4.08	4.55	11.2	26.8	37.0	36.5	
4	3.23	5.83	97.4	20.8	37.0	26.0	
5	3.65	14.40	13.0	12.0	37.0	27.0	

Bypass

Arm	Arm has bypass	Bypass Util (%)
1		
2		
3	✓	100
4		
5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.694	2199
2	0.556	1174
3	0.574	1348
4	0.659	1731
5	0.693	1954

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	365	100.000
2		✓	301	100.000
3		✓	802	100.000
4		✓	306	100.000
5		✓	134	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	67	73	224	1
	2	58	0	18	165	60
	3	220	19	0	531	32
	4	78	103	107	0	18
	5	1	20	40	73	0

Vehicle Mix

HV %s

		To				
		1	2	3	4	5
From	1	0	6	6	1	38
	2	2	0	49	5	6
	3	2	62	0	3	16
	4	4	9	3	0	12
	5	0	2	12	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.22	2.50	0.3	A
2	0.42	7.86	0.7	A
3	0.33	5.99	0.5	A
4	0.25	3.55	0.3	A
5	0.10	2.84	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	275	0	272	1936	0.142	274	0.2	2.165	A
2	227	0	389	886	0.256	225	0.3	5.434	A
3	586	400	436	1011	0.202	203	0.3	4.449	A
4	230	0	292	1442	0.160	230	0.2	2.968	A
5	101	0	439	1556	0.065	101	0.1	2.473	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	328	0	325	1897	0.173	328	0.2	2.294	A
2	271	0	465	846	0.320	270	0.5	6.251	A
3	699	477	522	964	0.253	243	0.3	4.993	A
4	275	0	350	1403	0.196	275	0.2	3.189	A
5	120	0	525	1496	0.081	120	0.1	2.617	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	402	0	398	1843	0.218	402	0.3	2.497	A
2	331	0	570	790	0.420	330	0.7	7.823	A
3	857	585	639	900	0.332	298	0.5	5.971	A
4	337	0	428	1351	0.249	337	0.3	3.547	A
5	148	0	643	1414	0.104	147	0.1	2.842	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	402	0	399	1843	0.218	402	0.3	2.497	A
2	331	0	570	789	0.420	331	0.7	7.861	A
3	857	585	640	899	0.332	298	0.5	5.989	A
4	337	0	429	1351	0.249	337	0.3	3.550	A
5	148	0	644	1413	0.104	148	0.1	2.844	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	328	0	326	1896	0.173	328	0.2	2.298	A
2	271	0	466	845	0.320	272	0.5	6.289	A
3	699	477	523	963	0.253	244	0.3	5.014	A
4	275	0	352	1402	0.196	275	0.2	3.194	A
5	120	0	527	1495	0.081	121	0.1	2.621	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	275	0	273	1935	0.142	275	0.2	2.168	A
2	227	0	390	886	0.256	227	0.3	5.472	A
3	586	400	438	1010	0.202	204	0.3	4.471	A
4	230	0	294	1441	0.160	231	0.2	2.974	A
5	101	0	441	1554	0.065	101	0.1	2.478	A

2024 with, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	4.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	359	100.000
2		✓	171	100.000
3		✓	345	100.000
4		✓	813	100.000
5		✓	89	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	111	195	53	0
	2	35	0	27	62	47
	3	164	8	0	159	14
	4	263	219	306	0	25
	5	1	18	44	26	0

Vehicle Mix

HV %s

		To				
		1	2	3	4	5
From	1	0	1	1	2	0
	2	1	0	11	13	0
	3	1	59	0	3	9
	4	0	3	1	0	2
	5	17	1	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.23	2.77	0.3	A
2	0.26	6.55	0.3	A
3	0.18	3.79	0.2	A
4	0.59	5.83	1.4	A
5	0.08	3.39	0.1	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	270	0	466	1846	0.146	270	0.2	2.282	A
2	129	0	468	854	0.151	128	0.2	4.958	A
3	258	120	167	1199	0.117	140	0.1	3.397	A
4	612	0	201	1575	0.389	610	0.6	3.718	A
5	67	0	746	1402	0.048	67	0.1	2.696	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	323	0	558	1782	0.181	323	0.2	2.467	A
2	154	0	560	805	0.191	153	0.2	5.525	A
3	309	143	200	1180	0.142	167	0.2	3.554	A
4	731	0	241	1549	0.472	730	0.9	4.391	A
5	80	0	893	1300	0.062	80	0.1	2.950	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	395	0	682	1694	0.233	395	0.3	2.771	A
2	188	0	686	739	0.255	188	0.3	6.532	A
3	378	175	245	1154	0.178	205	0.2	3.792	A
4	895	0	295	1512	0.592	893	1.4	5.788	A
5	98	0	1093	1162	0.084	98	0.1	3.382	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	395	0	684	1693	0.234	395	0.3	2.773	A
2	188	0	687	738	0.255	188	0.3	6.547	A
3	378	175	246	1154	0.178	205	0.2	3.793	A
4	895	0	295	1512	0.592	895	1.4	5.833	A
5	98	0	1095	1160	0.084	98	0.1	3.387	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	323	0	560	1780	0.181	323	0.2	2.471	A
2	154	0	562	804	0.191	154	0.2	5.542	A
3	309	143	201	1179	0.142	167	0.2	3.557	A
4	731	0	241	1548	0.472	733	0.9	4.427	A
5	80	0	897	1298	0.062	80	0.1	2.956	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	270	0	468	1844	0.147	270	0.2	2.287	A
2	129	0	470	852	0.151	129	0.2	4.979	A
3	258	120	168	1198	0.117	140	0.1	3.402	A
4	612	0	202	1575	0.389	613	0.6	3.750	A
5	67	0	750	1399	0.048	67	0.1	2.703	A

2024 without, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	12.47	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	1132	100.000
2		✓	188	100.000
3		✓	1143	100.000
4		✓	501	100.000
5		✓	40	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	1	49	527	541	14
	2	64	0	29	90	5
	3	473	16	0	632	22
	4	201	56	232	0	12
	5	9	2	22	7	0

Vehicle Mix

HV %s

		To				
		1	2	3	4	5
From	1	0	11	2	2	20
	2	5	0	24	8	17
	3	10	60	0	3	19
	4	7	16	13	0	8
	5	20	23	38	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.67	5.96	2.0	A
2	0.73	45.16	2.4	E
3	0.72	16.30	2.5	C
4	0.49	6.24	0.9	A
5	0.05	4.57	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	852	0	251	1944	0.438	849	0.8	3.279	A
2	142	0	1008	535	0.265	140	0.4	9.089	A
3	822	476	541	917	0.420	382	0.7	6.695	A
4	377	0	445	1268	0.298	375	0.4	4.027	A
5	30	0	780	1050	0.028	30	0.0	3.527	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1018	0	300	1904	0.534	1016	1.1	4.047	A
2	169	0	1207	429	0.394	168	0.6	13.712	B
3	982	568	647	860	0.534	458	1.1	8.905	A
4	450	0	533	1209	0.372	450	0.6	4.736	A
5	36	0	935	958	0.037	36	0.0	3.902	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1246	0	368	1851	0.673	1243	2.0	5.886	A
2	207	0	1476	286	0.723	201	2.3	39.427	E
3	1203	696	788	786	0.716	558	2.4	15.441	C
4	552	0	648	1133	0.487	550	0.9	6.161	A
5	44	0	1140	836	0.052	44	0.1	4.542	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1246	0	368	1850	0.674	1246	2.0	5.959	A
2	207	0	1480	284	0.728	206	2.4	45.163	E
3	1203	696	794	782	0.719	562	2.5	16.296	C
4	552	0	654	1129	0.489	552	0.9	6.238	A
5	44	0	1148	832	0.053	44	0.1	4.568	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1018	0	302	1903	0.535	1021	1.2	4.098	A
2	169	0	1212	426	0.397	176	0.7	14.774	B
3	982	568	657	855	0.537	465	1.2	9.335	A
4	450	0	543	1203	0.374	452	0.6	4.801	A
5	36	0	946	951	0.038	36	0.0	3.931	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	852	0	252	1942	0.439	854	0.8	3.313	A
2	142	0	1014	532	0.266	143	0.4	9.283	A
3	822	476	545	914	0.421	387	0.7	6.844	A
4	377	0	450	1264	0.298	378	0.4	4.067	A
5	30	0	788	1046	0.029	30	0.0	3.543	A

2024 without, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	9.75	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	680	100.000
2		✓	102	100.000
3		✓	894	100.000
4		✓	954	100.000
5		✓	50	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	43	472	158	7
	2	28	0	27	47	0
	3	497	10	0	370	17
	4	384	167	399	0	4
	5	10	6	28	7	0

Vehicle Mix

HV %s

		To				
		1	2	3	4	5
From	1	0	2	7	2	24
	2	0	0	13	15	0
	3	7	45	0	3	11
	4	2	5	2	0	7
	5	13	2	5	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.46	4.14	0.9	A
2	0.25	10.88	0.3	B
3	0.53	6.91	1.1	A
4	0.83	16.74	4.7	C
5	0.08	5.37	0.1	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	512	0	461	1766	0.290	510	0.4	2.863	A
2	77	0	803	641	0.120	76	0.1	6.369	A
3	661	279	185	1147	0.344	392	0.5	4.763	A
4	718	0	419	1399	0.514	714	1.0	5.228	A
5	38	0	1112	1080	0.035	38	0.0	3.454	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	611	0	553	1704	0.359	611	0.6	3.290	A
2	92	0	961	558	0.164	91	0.2	7.715	A
3	789	333	221	1126	0.418	470	0.7	5.482	A
4	858	0	502	1341	0.640	855	1.7	7.361	A
5	45	0	1331	931	0.049	45	0.1	4.064	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	749	0	672	1623	0.461	748	0.8	4.109	A
2	112	0	1173	446	0.252	112	0.3	10.755	B
3	966	407	271	1098	0.525	575	1.1	6.864	A
4	1050	0	614	1263	0.831	1039	4.5	15.361	C
5	56	0	1622	734	0.076	55	0.1	5.306	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	749	0	678	1618	0.463	749	0.9	4.138	A
2	112	0	1178	443	0.253	112	0.3	10.880	B
3	966	407	272	1098	0.525	577	1.1	6.907	A
4	1050	0	615	1262	0.832	1049	4.7	16.738	C
5	56	0	1634	726	0.077	56	0.1	5.368	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	611	0	561	1698	0.360	612	0.6	3.318	A
2	92	0	968	554	0.166	92	0.2	7.810	A
3	789	333	222	1125	0.419	473	0.7	5.527	A
4	858	0	504	1339	0.640	869	1.8	7.836	A
5	45	0	1348	920	0.049	46	0.1	4.117	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	512	0	466	1763	0.290	513	0.4	2.882	A
2	77	0	808	638	0.120	77	0.1	6.418	A
3	661	279	186	1146	0.344	395	0.5	4.802	A
4	718	0	422	1396	0.514	721	1.1	5.354	A
5	38	0	1122	1073	0.035	38	0.0	3.477	A

2034 with, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	6.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	407	100.000
2		✓	350	100.000
3		✓	1081	100.000
4		✓	398	100.000
5		✓	236	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	72	103	228	4
	2	62	0	20	207	61
	3	214	21	0	798	48
	4	112	107	125	0	54
	5	21	32	43	140	0

Vehicle Mix

HV %s

		To				
		1	2	3	4	5
From	1	0	6	5	1	11
	2	2	0	39	4	6
	3	1	54	0	2	13
	4	3	10	16	0	7
	5	0	7	19	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.26	2.77	0.3	A
2	0.54	10.98	1.2	B
3	0.37	6.89	0.6	A
4	0.34	4.21	0.5	A
5	0.19	3.32	0.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	306	0	351	1870	0.164	305	0.2	2.300	A
2	263	0	482	839	0.314	262	0.5	6.222	A
3	786	601	526	970	0.220	212	0.3	4.742	A
4	300	0	307	1385	0.216	299	0.3	3.310	A
5	178	0	480	1503	0.118	177	0.1	2.713	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	366	0	420	1818	0.201	365	0.3	2.478	A
2	315	0	577	786	0.401	314	0.7	7.615	A
3	938	717	630	913	0.279	254	0.4	5.462	A
4	358	0	368	1346	0.266	357	0.4	3.641	A
5	212	0	575	1437	0.148	212	0.2	2.939	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	448	0	515	1746	0.256	447	0.3	2.771	A
2	385	0	707	713	0.540	383	1.1	10.846	B
3	1149	879	770	835	0.373	311	0.6	6.855	A
4	438	0	449	1294	0.339	438	0.5	4.201	A
5	260	0	704	1346	0.193	260	0.2	3.313	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	448	0	515	1746	0.256	448	0.3	2.772	A
2	385	0	708	713	0.540	385	1.2	10.981	B
3	1149	879	772	834	0.374	312	0.6	6.892	A
4	438	0	451	1293	0.339	438	0.5	4.211	A
5	260	0	706	1345	0.193	260	0.2	3.316	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	366	0	421	1817	0.201	366	0.3	2.483	A
2	315	0	578	785	0.401	317	0.7	7.717	A
3	938	717	633	911	0.279	255	0.4	5.497	A
4	358	0	370	1345	0.266	358	0.4	3.650	A
5	212	0	578	1435	0.148	212	0.2	2.944	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	306	0	353	1869	0.164	306	0.2	2.304	A
2	263	0	484	838	0.315	264	0.5	6.292	A
3	786	601	529	968	0.220	213	0.3	4.775	A
4	300	0	309	1384	0.217	300	0.3	3.322	A
5	178	0	483	1501	0.118	178	0.1	2.722	A

2034 with, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	5.62	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	214	100.000
2		✓	249	100.000
3		✓	382	100.000
4		✓	890	100.000
5		✓	185	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	85	82	45	2
	2	65	0	28	110	46
	3	105	9	0	232	36
	4	229	227	390	0	44
	5	17	31	58	79	0

Vehicle Mix

HV %s

		To				
		1	2	3	4	5
From	1	0	1	1	2	7
	2	1	0	13	7	1
	3	1	47	0	2	3
	4	1	3	1	0	1
	5	0	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.15	2.72	0.2	A
2	0.37	7.88	0.6	A
3	0.15	3.95	0.2	A
4	0.65	6.76	1.8	A
5	0.18	3.80	0.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	161	0	595	1755	0.092	161	0.1	2.258	A
2	187	0	492	855	0.219	186	0.3	5.379	A
3	284	175	260	1146	0.099	112	0.1	3.482	A
4	670	0	197	1574	0.426	667	0.7	3.957	A
5	139	0	768	1402	0.099	139	0.1	2.850	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	192	0	713	1673	0.115	192	0.1	2.431	A
2	224	0	589	803	0.279	223	0.4	6.212	A
3	339	209	311	1116	0.121	135	0.1	3.666	A
4	800	0	236	1548	0.517	799	1.1	4.799	A
5	166	0	920	1296	0.128	166	0.1	3.186	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	236	0	872	1562	0.151	235	0.2	2.714	A
2	274	0	721	732	0.375	273	0.6	7.833	A
3	415	255	381	1077	0.153	165	0.2	3.948	A
4	980	0	289	1512	0.648	977	1.8	6.685	A
5	204	0	1125	1152	0.177	203	0.2	3.795	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	236	0	874	1560	0.151	236	0.2	2.717	A
2	274	0	722	731	0.375	274	0.6	7.876	A
3	415	255	382	1076	0.153	165	0.2	3.950	A
4	980	0	290	1512	0.648	980	1.8	6.761	A
5	204	0	1128	1150	0.177	204	0.2	3.803	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	192	0	716	1671	0.115	193	0.1	2.437	A
2	224	0	591	801	0.279	225	0.4	6.253	A
3	339	209	313	1116	0.121	135	0.1	3.673	A
4	800	0	237	1547	0.517	803	1.1	4.858	A
5	166	0	925	1293	0.129	167	0.1	3.199	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	161	0	599	1753	0.092	161	0.1	2.263	A
2	187	0	495	853	0.220	188	0.3	5.416	A
3	284	175	262	1145	0.099	113	0.1	3.491	A
4	670	0	198	1573	0.426	671	0.7	3.998	A
5	139	0	773	1399	0.100	139	0.1	2.858	A

2034 without, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	424.30	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	1380	100.000
2		✓	214	100.000
3		✓	1866	100.000
4		✓	592	100.000
5		✓	170	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	57	681	599	43
	2	42	1	47	118	6
	3	716	21	1	1030	98
	4	207	63	308	1	13
	5	27	16	116	11	0

Vehicle Mix

HV %s

		To				
		1	2	3	4	5
From	1	0	8	10	2	13
	2	10	0	17	10	17
	3	9	52	0	5	12
	4	7	22	14	0	5
	5	24	7	19	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.94	31.30	12.4	D
2	38.01	6101.93	121.7	F
3	1.10	214.29	54.0	F
4	0.67	11.24	2.0	B
5	0.25	6.28	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1039	0	403	1757	0.591	1033	1.4	4.937	A
2	161	0	1318	338	0.477	158	0.9	19.598	C
3	1367	775	613	889	0.708	620	2.3	13.006	B
4	446	0	688	1096	0.407	443	0.7	5.491	A
5	128	0	1012	996	0.129	127	0.1	4.142	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1241	0	482	1696	0.731	1236	2.6	7.734	A
2	192	0	1576	198	0.972	172	5.9	144.537	F
3	1632	926	720	831	0.905	733	6.9	32.138	D
4	532	0	811	1016	0.524	531	1.1	7.386	A
5	153	0	1201	873	0.175	153	0.2	4.997	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1519	0	586	1617	0.940	1487	10.6	23.511	C
2	236	0	1905	20	11.761	20	59.8	6101.927	F
3	1999	1134	721	835	1.103	821	31.8	99.636	F
4	652	0	872	977	0.667	648	1.9	10.846	B
5	187	0	1363	767	0.244	187	0.3	6.205	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1519	0	589	1615	0.941	1512	12.4	31.300	D
2	236	0	1931	6	38.013	6	117.2	2285.072	F
3	1999	1134	722	835	1.103	831	54.0	197.909	F
4	652	0	880	972	0.671	652	2.0	11.236	B
5	187	0	1372	760	0.246	187	0.3	6.280	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1241	0	487	1692	0.733	1279	2.8	9.476	A
2	192	0	1621	174	1.103	174	121.7	1739.220	F
3	1632	926	742	819	0.918	804	40.9	214.286	F
4	532	0	884	969	0.549	535	1.2	8.354	A
5	153	0	1268	829	0.184	153	0.2	5.330	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1039	0	411	1750	0.594	1044	1.5	5.143	A
2	161	0	1331	331	0.487	328	80.0	1109.483	F
3	1367	775	751	810	0.777	774	4.6	105.138	F
4	446	0	882	970	0.459	447	0.9	6.901	A
5	128	0	1187	883	0.145	128	0.2	4.772	A

2034 without, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	75.23	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	996	100.000
2		✓	129	100.000
3		✓	1399	100.000
4		✓	966	100.000
5		✓	186	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	1	61	663	235	36
	2	28	1	31	68	1
	3	715	12	0	567	105
	4	379	190	392	1	4
	5	36	27	114	9	0

Vehicle Mix

HV %s

		To				
		1	2	3	4	5
From	1	0	1	6	2	10
	2	1	1	12	16	0
	3	5	48	0	2	100
	4	1	5	2	25	4
	5	5	1	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.70	7.49	2.3	A
2	0.58	34.70	1.3	D
3	0.98	71.05	17.6	F
4	1.11	172.43	56.6	F
5	0.31	7.87	0.4	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	750	0	557	1714	0.437	747	0.8	3.707	A
2	97	0	1087	488	0.199	96	0.2	9.157	A
3	997	427	284	1000	0.626	620	1.6	9.314	A
4	727	0	670	1189	0.612	721	1.5	7.594	A
5	140	0	1282	1004	0.139	139	0.2	4.160	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	895	0	665	1640	0.546	894	1.2	4.810	A
2	116	0	1299	378	0.307	115	0.4	13.667	B
3	1190	510	341	971	0.770	742	3.1	15.295	C
4	868	0	802	1090	0.797	860	3.6	15.139	C
5	167	0	1532	830	0.201	167	0.2	5.424	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1097	0	755	1578	0.695	1092	2.2	7.346	A
2	142	0	1550	247	0.574	139	1.2	32.256	D
3	1457	624	415	933	0.981	876	13.0	45.617	E
4	1064	0	949	979	1.086	957	30.3	77.388	F
5	204	0	1751	677	0.302	204	0.4	7.605	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1097	0	757	1577	0.695	1096	2.3	7.487	A
2	142	0	1555	245	0.580	142	1.3	34.703	D
3	1457	624	418	932	0.983	898	17.6	71.049	F
4	1064	0	972	962	1.105	958	56.6	172.427	F
5	204	0	1772	662	0.309	204	0.4	7.875	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	895	0	766	1571	0.570	899	1.3	5.383	A
2	116	0	1372	341	0.340	119	0.5	16.445	C
3	1190	510	345	969	0.772	803	3.7	27.387	D
4	868	0	865	1043	0.833	1024	17.6	135.035	F
5	167	0	1750	679	0.246	167	0.3	7.050	A

18:00 - 18:15

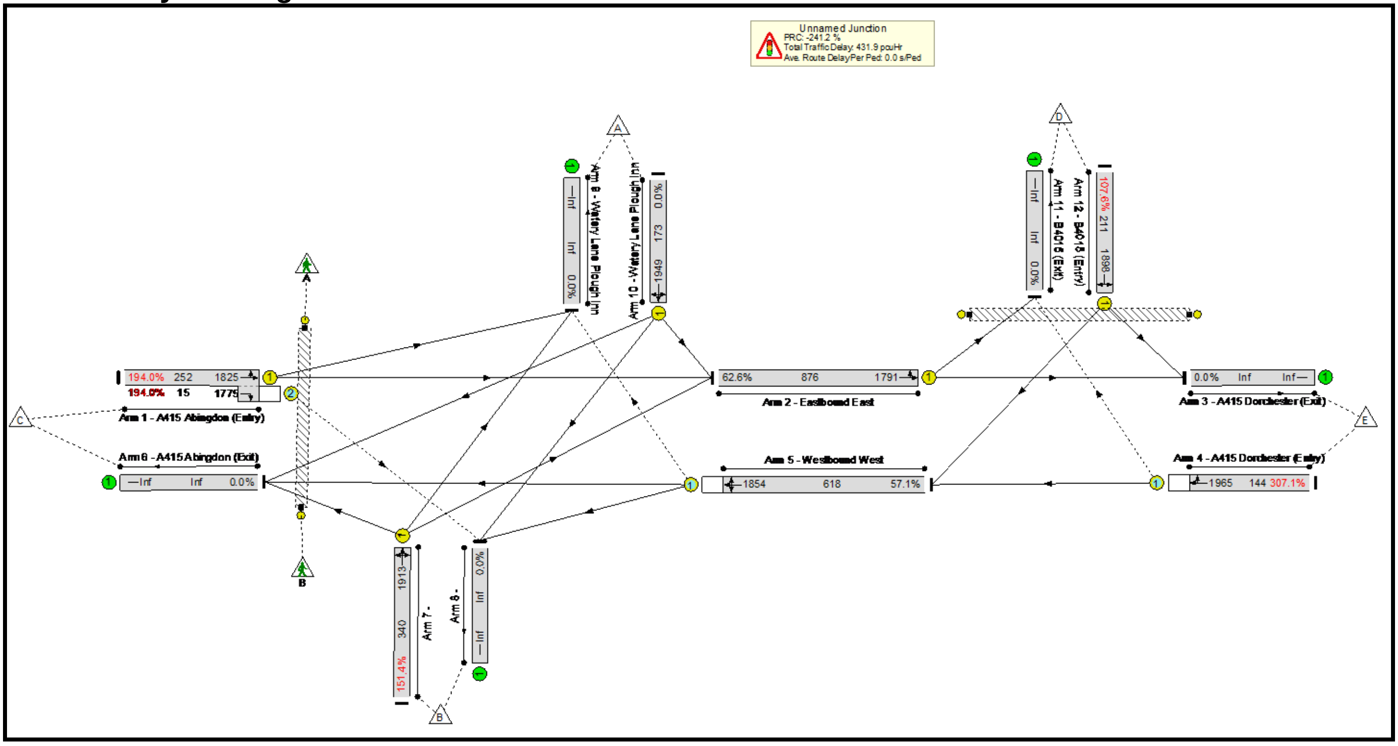
Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	750	0	601	1685	0.445	752	0.8	3.868	A
2	97	0	1121	471	0.206	98	0.3	9.689	A
3	997	427	288	999	0.627	634	1.7	10.083	B
4	727	0	685	1178	0.617	791	1.7	10.905	B
5	140	0	1365	947	0.148	140	0.2	4.467	A

Basic Results Summary
Basic Results Summary

User and Project Details

Project:	**Didcot Garden Town – HIF1**
Title:	**Clifton Hampden Signals**
Location:	
Additional detail:	
File name:	OFF 6 OFF 7_Clifton Hampden Signals_v2.lsg3x
Author:	
Company:	AECOM
Address:	

Scenario 1: '2020 AM' (FG1: '2020 AM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram



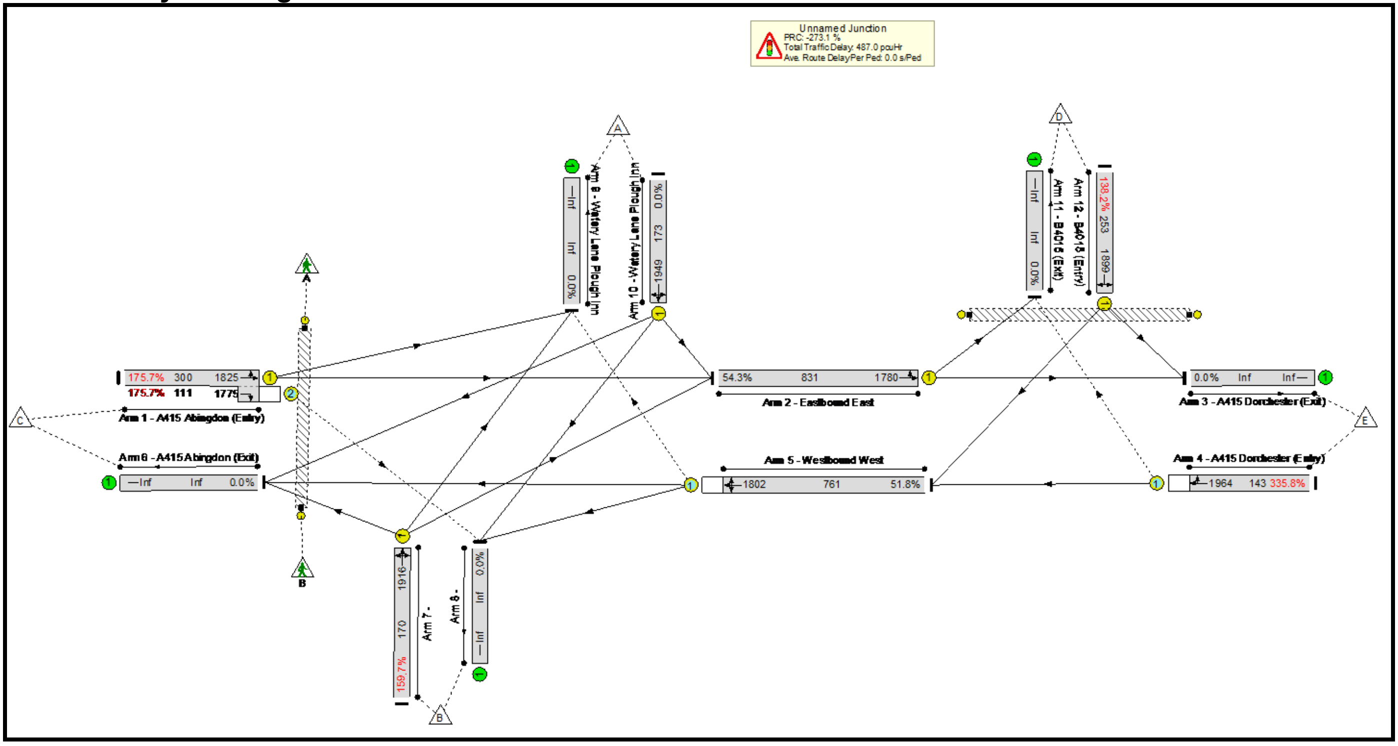
Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**307.1%**	**15**	**0**	**0**	**431.9**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**307.1%**	**15**	**0**	**0**	**431.9**	**-**	**-**
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	12	-	518	1825:1775	252+15	194.0 : 194.0%	15	0	0	143.7	998.9	149.1
2/1	Eastbound East Ahead Left	U	F		1	43	-	937	1791	876	62.6%	-	-	-	1.5	10.1	2.3
4/1	A415 Dorchester (Entry) Ahead Right	O	B		1	9	-	442	1965	144	307.1%	0	0	0	168.4	1371.5	173.3
5/1	Westbound West Ahead Left Right	O	G		2	28	-	666	1854	618	57.1%	0	0	0	1.7	17.1	6.4
7/1	Right Left Ahead	U	D		1	15	-	515	1913	340	151.4%	-	-	-	101.0	705.8	106.2
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	C		1	9	-	227	1898	211	107.6%	-	-	-	15.6	247.2	18.6
Ped Link: P1	Unnamed Ped Link	-	H		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -241.2 Total Delay for Signalled Lanes (pcuHr): 431.90 Cycle Time (s): 90
PRC Over All Lanes (%): -241.2 Total Delay Over All Lanes(pcuHr): 431.90

Basic Results Summary
Scenario 2: '2020 PM' (FG2: '2020 PM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram



Basic Results Summary

Network Results

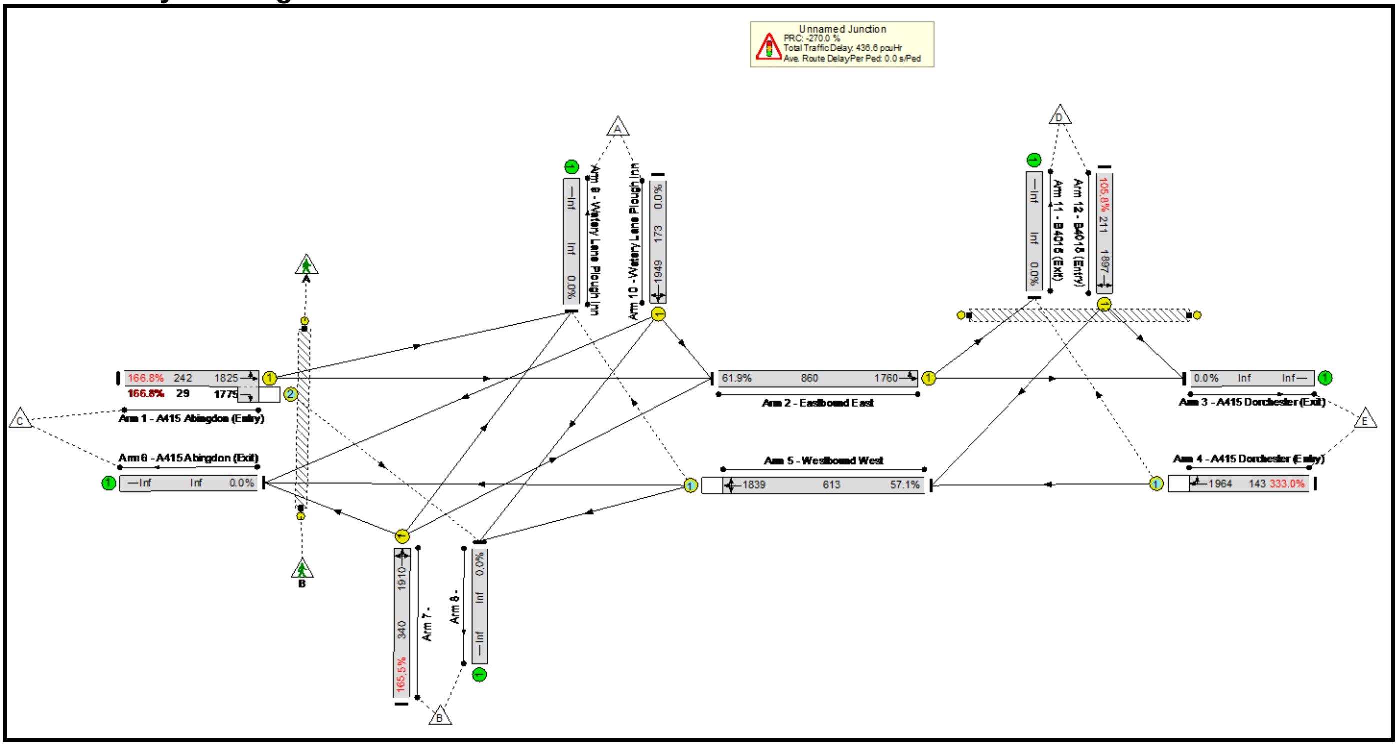
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**335.8%**	**111**	**0**	**0**	**487.0**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**335.8%**	**111**	**0**	**0**	**487.0**	**-**	**-**
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	18	-	723	1825:1775	300+111	175.7 : 175.7%	111	0	0	178.2	887.4	184.6
2/1	Eastbound East Ahead Left	U	F		1	41	-	768	1780	831	54.3%	-	-	-	1.3	10.5	2.0
4/1	A415 Dorchester (Entry) Ahead Right	O	B		1	15	-	479	1964	143	335.8%	0	0	0	188.9	1419.4	194.2
5/1	Westbound West Ahead Left Right	O	G		2	36	-	825	1802	761	51.8%	0	0	0	1.6	14.3	7.2
7/1	Right Left Ahead	U	D		1	7	-	272	1916	170	159.7%	-	-	-	59.1	782.6	61.5
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	C		1	11	-	350	1899	253	138.2%	-	-	-	57.9	595.5	62.3
Ped Link: P1	Unnamed Ped Link	-	H		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -273.1 Total Delay for Signalled Lanes (pcuHr): 486.99 Cycle Time (s): 90
PRC Over All Lanes (%): -273.1 Total Delay Over All Lanes(pcuHr): 486.99

Basic Results Summary

Scenario 3: '2024 Without AM' (FG3: '2024 Without AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

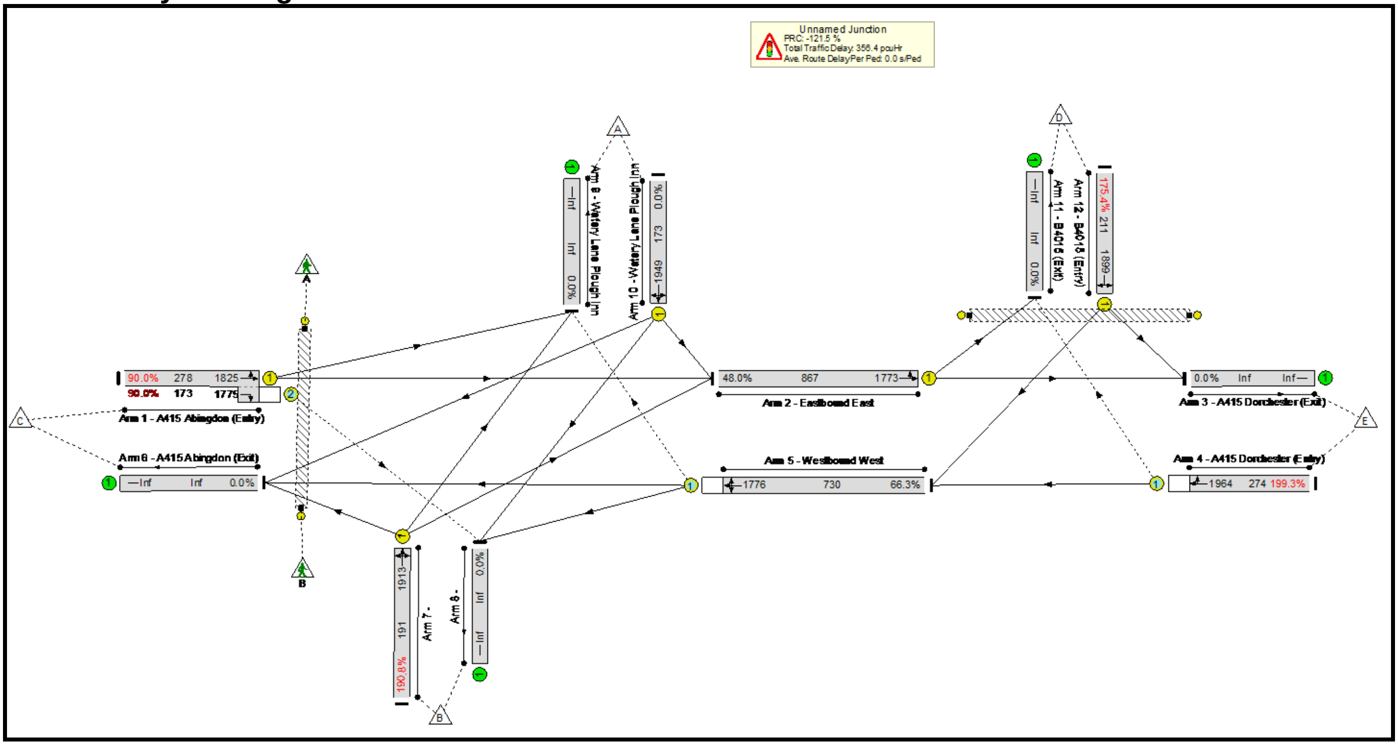
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**333.0%**	**30**	**0**	**0**	**436.6**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**333.0%**	**30**	**0**	**0**	**436.6**	**-**	**-**
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	12	-	453	1825:1775	242+29	166.8 : 166.8%	29	0	0	105.2	835.7	109.5
2/1	Eastbound East Ahead Left	U	F		1	43	-	885	1760	860	61.9%	-	-	-	1.5	10.2	2.2
4/1	A415 Dorchester (Entry) Ahead Right	O	B		1	9	-	475	1964	143	333.0%	0	0	0	187.4	1420.6	192.7
5/1	Westbound West Ahead Left Right	O	G		2	28	-	693	1839	613	57.1%	0	0	0	1.7	17.2	6.4
7/1	Right Left Ahead	U	D		1	15	-	562	1910	340	165.5%	-	-	-	126.9	812.7	132.1
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	C		1	9	-	223	1897	211	105.8%	-	-	-	14.0	225.6	17.0
Ped Link: P1	Unnamed Ped Link	-	H		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -270.0 Total Delay for Signalled Lanes (pcuHr): 436.63 Cycle Time (s): 90
PRC Over All Lanes (%): -270.0 Total Delay Over All Lanes(pcuHr): 436.63

Basic Results Summary

Scenario 4: '2024 Without PM' (FG4: '2024 Without PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

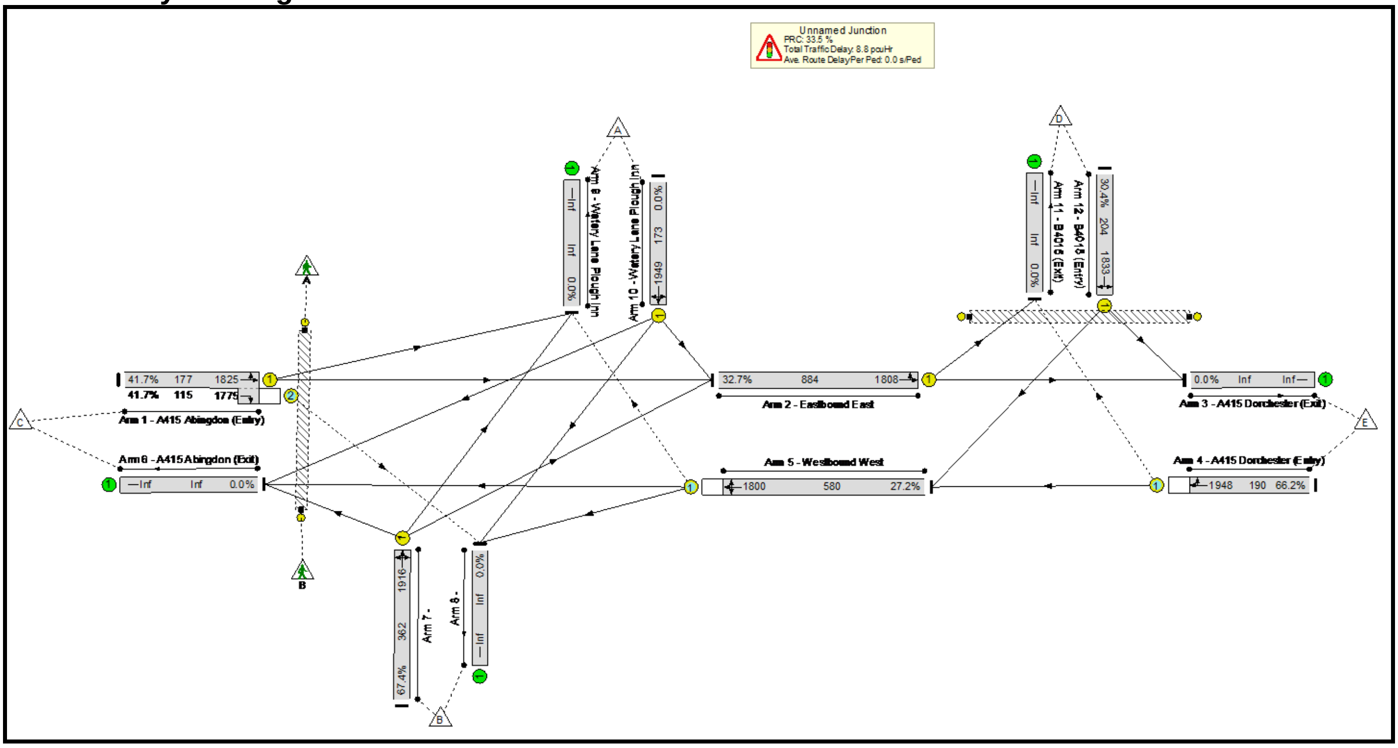
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**199.3%**	**157**	**0**	**0**	**356.4**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**199.3%**	**157**	**0**	**0**	**356.4**	**-**	**-**
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	19	-	406	1825:1775	278+173	90.0 : 90.0%	156	0	0	7.7	68.0	12.4
2/1	Eastbound East Ahead Left	U	F		1	43	-	567	1773	867	48.0%	-	-	-	1.2	10.0	1.8
4/1	A415 Dorchester (Entry) Ahead Right	O	B		1	16	-	546	1964	274	199.3%	1	0	0	154.8	1020.9	160.2
5/1	Westbound West Ahead Left Right	O	G		2	35	-	912	1776	730	66.3%	0	0	0	1.9	14.5	6.3
7/1	Right Left Ahead	U	D		1	8	-	365	1913	191	190.8%	-	-	-	98.7	973.9	101.5
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	C		1	9	-	370	1899	211	175.4%	-	-	-	92.1	895.8	96.3
Ped Link: P1	Unnamed Ped Link	-	H		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -121.5 Total Delay for Signalled Lanes (pcuHr): 356.41 Cycle Time (s): 90
PRC Over All Lanes (%): -121.5 Total Delay Over All Lanes(pcuHr): 356.41

Basic Results Summary

Scenario 5: '2024 With AM' (FG5: '2024 With AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

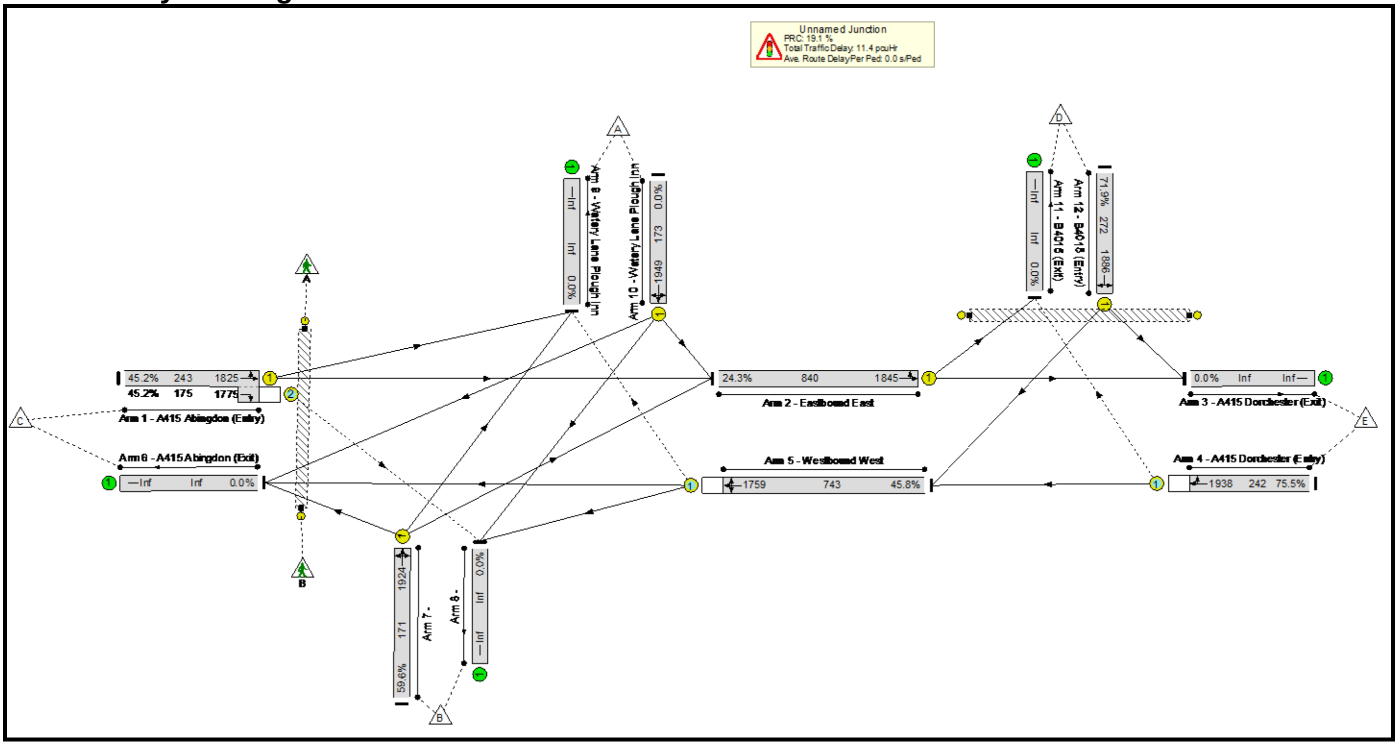
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**67.4%**	**59**	**0**	**1**	**8.8**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**67.4%**	**59**	**0**	**1**	**8.8**	**-**	**-**
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	11	-	122	1825:1775	177+115	41.7 : 41.7%	48	0	0	1.5	45.7	2.0
2/1	Eastbound East Ahead Left	U	F		1	43	-	289	1808	884	32.7%	-	-	-	0.4	4.8	0.5
4/1	A415 Dorchester (Entry) Ahead Right	O	B		1	8	-	126	1948	190	66.2%	11	0	1	2.3	66.6	4.0
5/1	Westbound West Ahead Left Right	O	G		2	27	-	158	1800	580	27.2%	0	0	0	0.3	7.4	1.3
7/1	Right Left Ahead	U	D		1	16	-	244	1916	362	67.4%	-	-	-	3.3	48.9	6.6
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	C		1	9	-	62	1833	204	30.4%	-	-	-	0.9	49.5	1.6
Ped Link: P1	Unnamed Ped Link	-	H		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 33.5 Total Delay for Signalled Lanes (pcuHr): 8.76 Cycle Time (s): 90
PRC Over All Lanes (%): 33.5 Total Delay Over All Lanes(pcuHr): 8.76

Basic Results Summary

Scenario 6: '2024 With PM' (FG6: '2024 With PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

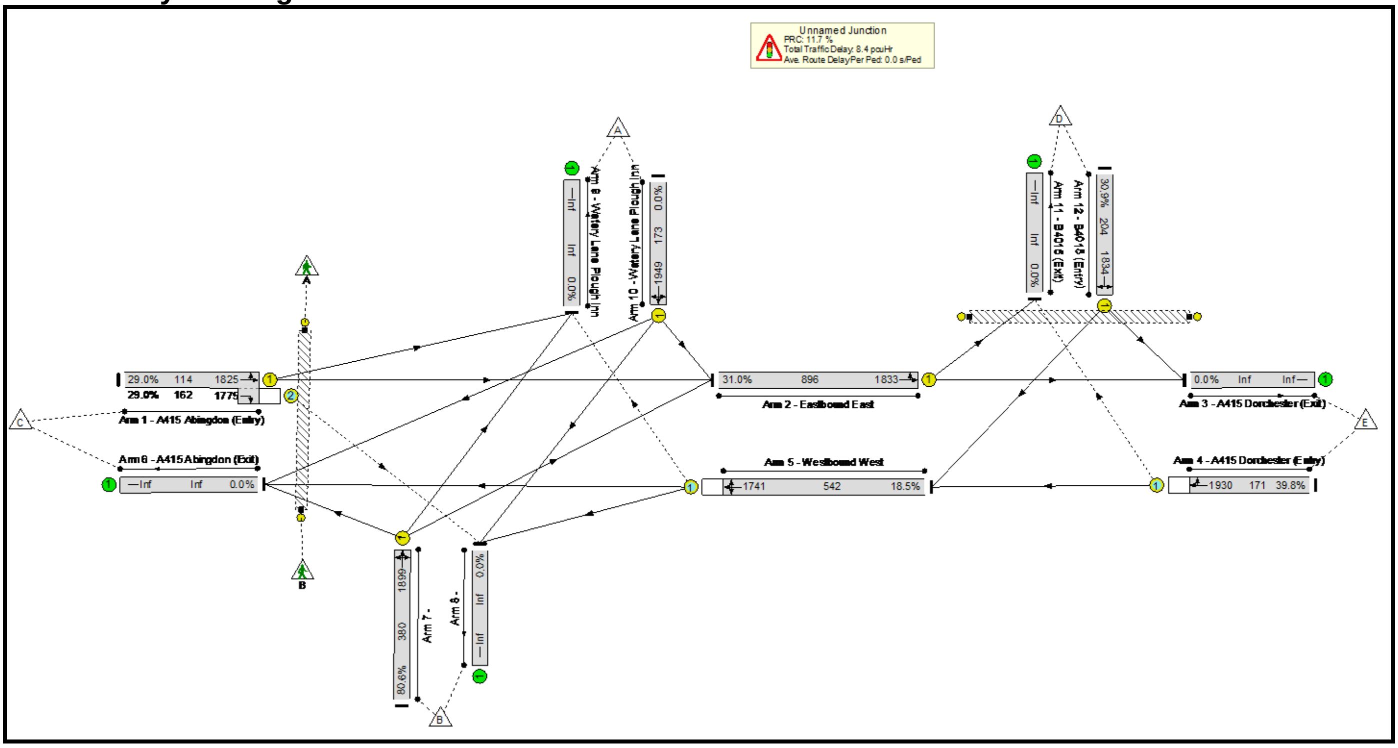
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.5%**	**103**	**0**	**3**	**11.4**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.5%**	**103**	**0**	**3**	**11.4**	**-**	**-**
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	17	-	189	1825:1775	243+175	45.2 : 45.2%	79	0	0	2.0	38.6	3.0
2/1	Eastbound East Ahead Left	U	F		1	40	-	204	1845	840	24.3%	-	-	-	0.4	6.5	0.6
4/1	A415 Dorchester (Entry) Ahead Right	O	B		1	14	-	183	1938	242	75.5%	24	0	3	3.3	64.6	5.8
5/1	Westbound West Ahead Left Right	O	G		2	36	-	340	1759	743	45.8%	0	0	0	0.6	6.7	4.4
7/1	Right Left Ahead	U	D		1	7	-	102	1924	171	59.6%	-	-	-	1.8	65.0	3.2
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	C		1	12	-	196	1886	272	71.9%	-	-	-	3.2	59.6	5.9
Ped Link: P1	Unnamed Ped Link	-	H		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 19.1 Total Delay for Signalled Lanes (pcuHr): 11.40 Cycle Time (s): 90
PRC Over All Lanes (%): 19.1 Total Delay Over All Lanes(pcuHr): 11.40

Basic Results Summary

Scenario 9: '2034 With AM' (FG9: '2034 With AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



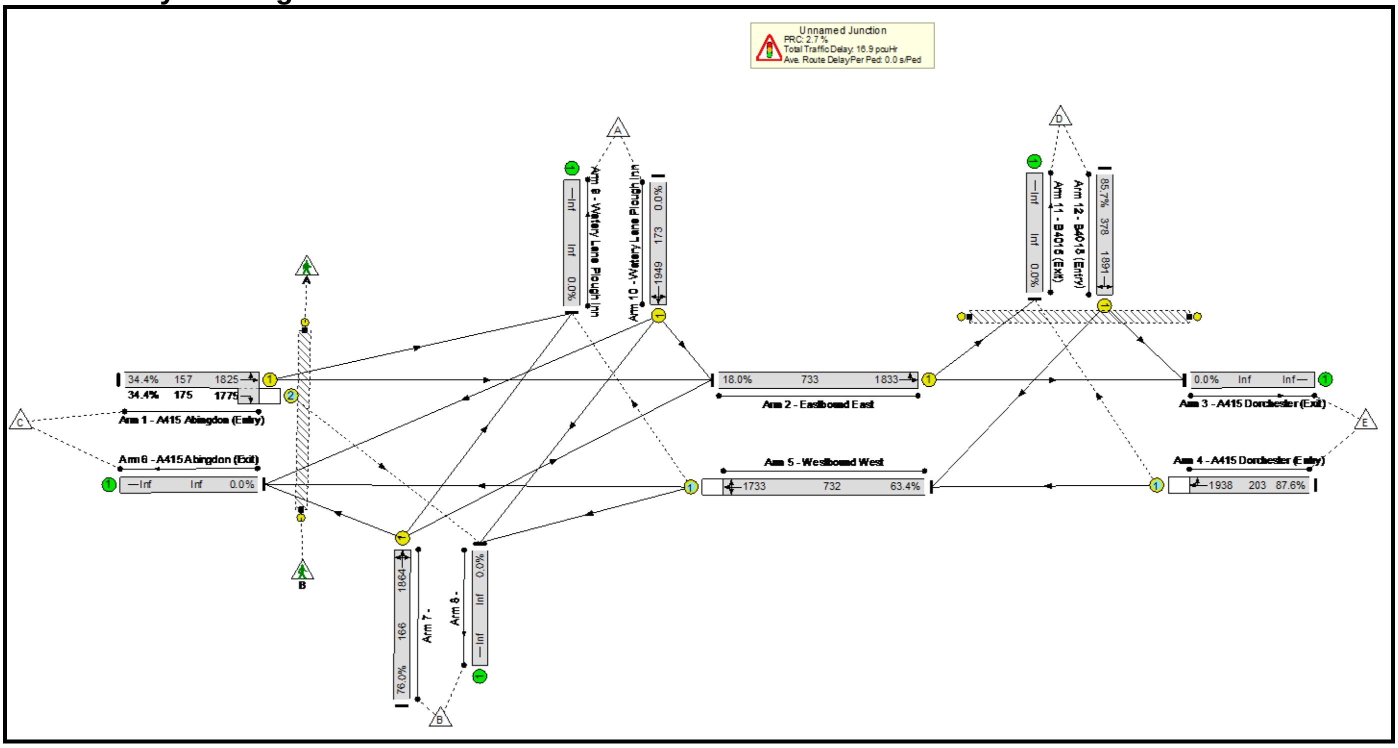
Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**80.6%**	**60**	**0**	**0**	**8.4**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**80.6%**	**60**	**0**	**0**	**8.4**	**-**	**-**
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	10	-	80	1825:1775	114+162	29.0 : 29.0%	47	0	0	1.0	44.8	1.3
2/1	Eastbound East Ahead Left	U	F		1	43	-	278	1833	896	31.0%	-	-	-	0.4	5.6	0.7
4/1	A415 Dorchester (Entry) Ahead Right	O	B		1	7	-	68	1930	171	39.8%	13	0	0	1.1	56.5	1.9
5/1	Westbound West Ahead Left Right	O	G		2	26	-	100	1741	542	18.5%	0	0	0	0.2	6.5	0.4
7/1	Right Left Ahead	U	D		1	17	-	306	1899	380	80.6%	-	-	-	4.9	57.5	9.2
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	C		1	9	-	63	1834	204	30.9%	-	-	-	0.9	49.6	1.7
Ped Link: P1	Unnamed Ped Link	-	H		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 11.7 Total Delay for Signalled Lanes (pcuHr): 8.43 Cycle Time (s): 90
PRC Over All Lanes (%): 11.7 Total Delay Over All Lanes(pcuHr): 8.43

Basic Results Summary
Scenario 10: '2034 With PM' (FG10: '2034 With PM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram



Basic Results Summary

Network Results

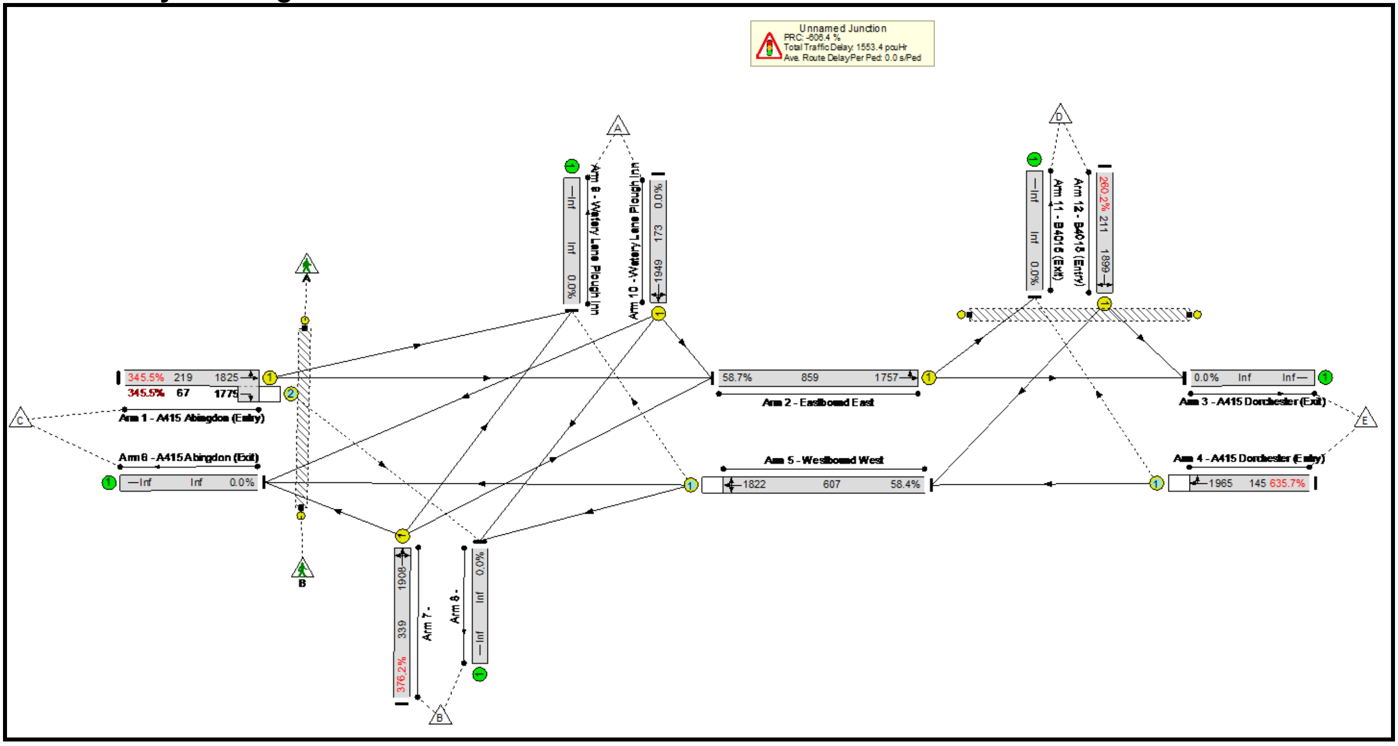
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.6%**	**78**	**0**	**8**	**16.9**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.6%**	**78**	**0**	**8**	**16.9**	**-**	**-**
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	12	-	114	1825:1775	157+175	34.4 : 34.4%	60	0	0	1.4	43.1	1.6
2/1	Eastbound East Ahead Left	U	F		1	35	-	132	1833	733	18.0%	-	-	-	0.4	9.9	0.6
4/1	A415 Dorchester (Entry) Ahead Right	O	B		1	9	-	178	1938	203	87.6%	18	0	8	4.9	98.9	7.2
5/1	Westbound West Ahead Left Right	O	G		2	36	-	464	1733	732	63.4%	0	0	0	1.5	11.8	9.4
7/1	Right Left Ahead	U	D		1	7	-	126	1864	166	76.0%	-	-	-	2.9	82.3	4.5
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	C		1	17	-	324	1891	378	85.7%	-	-	-	5.8	64.9	10.5
Ped Link: P1	Unnamed Ped Link	-	H		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 2.7 Total Delay for Signalled Lanes (pcuHr): 16.86 Cycle Time (s): 90
PRC Over All Lanes (%): 2.7 Total Delay Over All Lanes(pcuHr): 16.86

Basic Results Summary

Scenario 17: '2034 Without AM' (FG17: '2034 Without AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

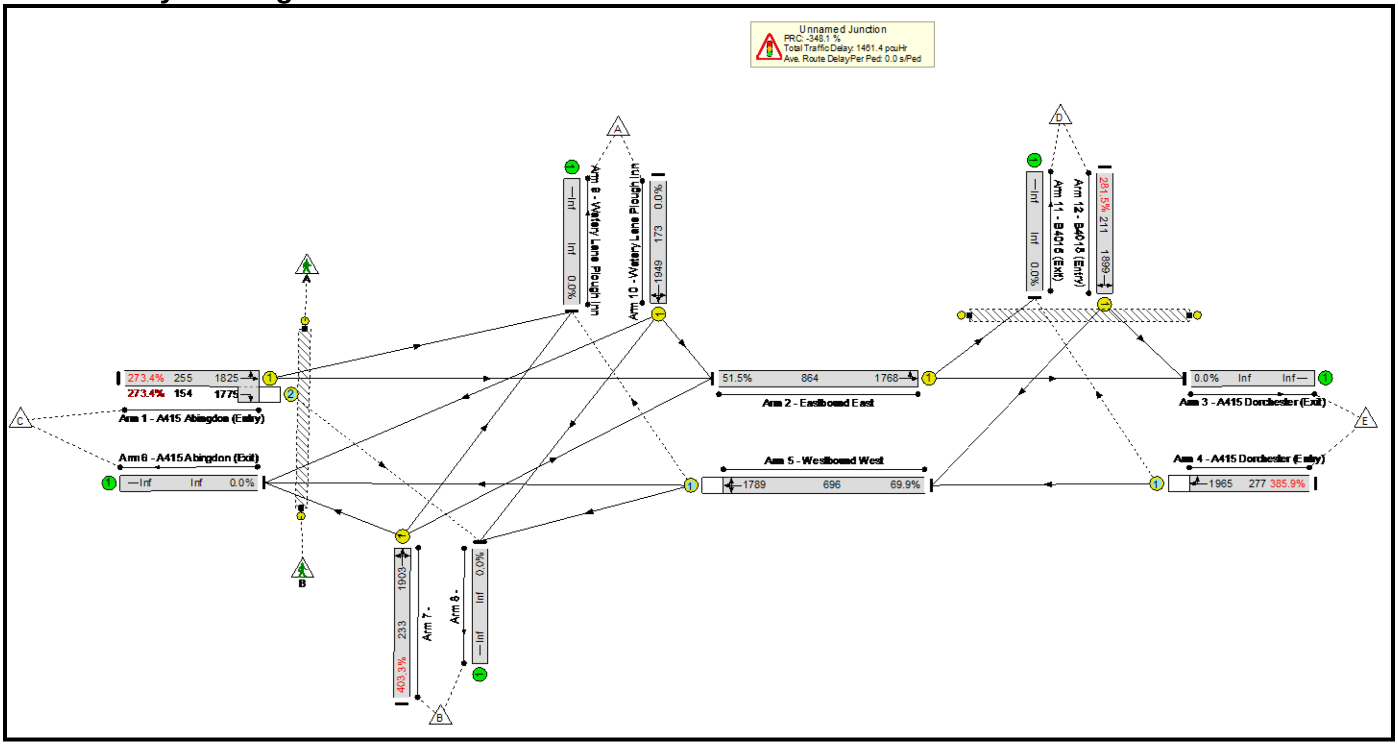
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**635.7%**	**68**	**0**	**0**	**1553.4**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**635.7%**	**68**	**0**	**0**	**1553.4**	**-**	**-**
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	12	-	988	1825:1775	219+67	345.5 : 345.5%	67	0	0	394.8	1438.6	405.4
2/1	Eastbound East Ahead Left	U	F		1	43	-	1829	1757	859	58.7%	-	-	-	1.4	10.0	2.1
4/1	A415 Dorchester (Entry) Ahead Right	O	B		1	9	-	920	1965	145	635.7%	0	0	0	435.6	1704.5	446.4
5/1	Westbound West Ahead Left Right	O	G		2	28	-	1465	1822	607	58.4%	0	0	0	1.7	17.7	6.5
7/1	Right Left Ahead	U	D		1	15	-	1276	1908	339	376.2%	-	-	-	527.4	1487.9	539.3
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	C		1	9	-	549	1899	211	260.2%	-	-	-	192.4	1261.9	198.1
Ped Link: P1	Unnamed Ped Link	-	H		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -606.4 Total Delay for Signalled Lanes (pcuHr): 1553.38 Cycle Time (s): 90
PRC Over All Lanes (%): -606.4 Total Delay Over All Lanes(pcuHr): 1553.38

Basic Results Summary

Scenario 18: '2034 Without PM' (FG18: '2034 Without PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**403.3%**	**147**	**0**	**8**	**1461.4**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**403.3%**	**147**	**0**	**8**	**1461.4**	**-**	**-**
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	17	-	1119	1825:1775	255+154	273.4 : 273.4%	147	0	7	399.3	1284.6	410.1
2/1	Eastbound East Ahead Left	U	F		1	43	-	1465	1768	864	51.5%	-	-	-	1.2	9.6	1.9
4/1	A415 Dorchester (Entry) Ahead Right	O	B		1	14	-	1067	1965	277	385.9%	0	0	0	443.4	1495.9	455.2
5/1	Westbound West Ahead Left Right	O	G		2	33	-	1657	1789	696	69.9%	0	0	0	2.4	17.6	7.1
7/1	Right Left Ahead	U	D		1	10	-	938	1903	233	403.3%	-	-	-	397.5	1525.4	406.3
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	C		1	9	-	594	1899	211	281.5%	-	-	-	217.7	1319.6	223.8
Ped Link: P1	Unnamed Ped Link	-	H		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -348.1 Total Delay for Signalled Lanes (pcuHr): 1461.40 Cycle Time (s): 90
PRC Over All Lanes (%): -348.1 Total Delay Over All Lanes(pcuHr): 1461.40

Junctions 9

ARCADY 9 - Roundabout Module

Filename: OFF 8 Junction-Harwell Road_Milton Road_High Street.j9
Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF8 - Junction 25-Harwell Road_Milton Road_High Street
Report generation date: 02/07/2021 08:59:25

Summary of junction performance

	AM					PM				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
	2020									
Arm 1	D1	0.6	6.45	0.39	A	D2	0.3	4.68	0.26	A
Arm 2		0.3	4.30	0.21	A		1.2	7.15	0.54	A
Arm 3		0.4	6.04	0.27	A		0.2	6.80	0.17	A
	2024 with									
Arm 1	D3	0.6	5.88	0.37	A	D4	0.3	4.49	0.22	A
Arm 2		0.2	4.00	0.17	A		0.4	4.68	0.29	A
Arm 3		0.4	5.86	0.27	A		0.2	5.35	0.15	A
	2024 without									
Arm 1	D5	0.8	7.10	0.44	A	D6	0.4	4.93	0.29	A
Arm 2		0.9	6.28	0.47	A		1.7	8.77	0.63	A
Arm 3		0.6	8.71	0.36	A		0.3	7.92	0.21	A
	2034 with									
Arm 1	D7	1.0	7.37	0.49	A	D8	0.7	6.02	0.43	A
Arm 2		0.3	4.33	0.24	A		0.8	5.92	0.44	A
Arm 3		0.4	6.33	0.29	A		0.3	6.50	0.22	A
	2034 without									
Arm 1	D9	1.2	8.54	0.54	A	D10	0.5	5.27	0.33	A
Arm 2		15.1	54.76	0.97	F		25.0	80.44	1.00	F
Arm 3		2.5	40.96	0.74	E		0.8	18.75	0.44	C

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

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

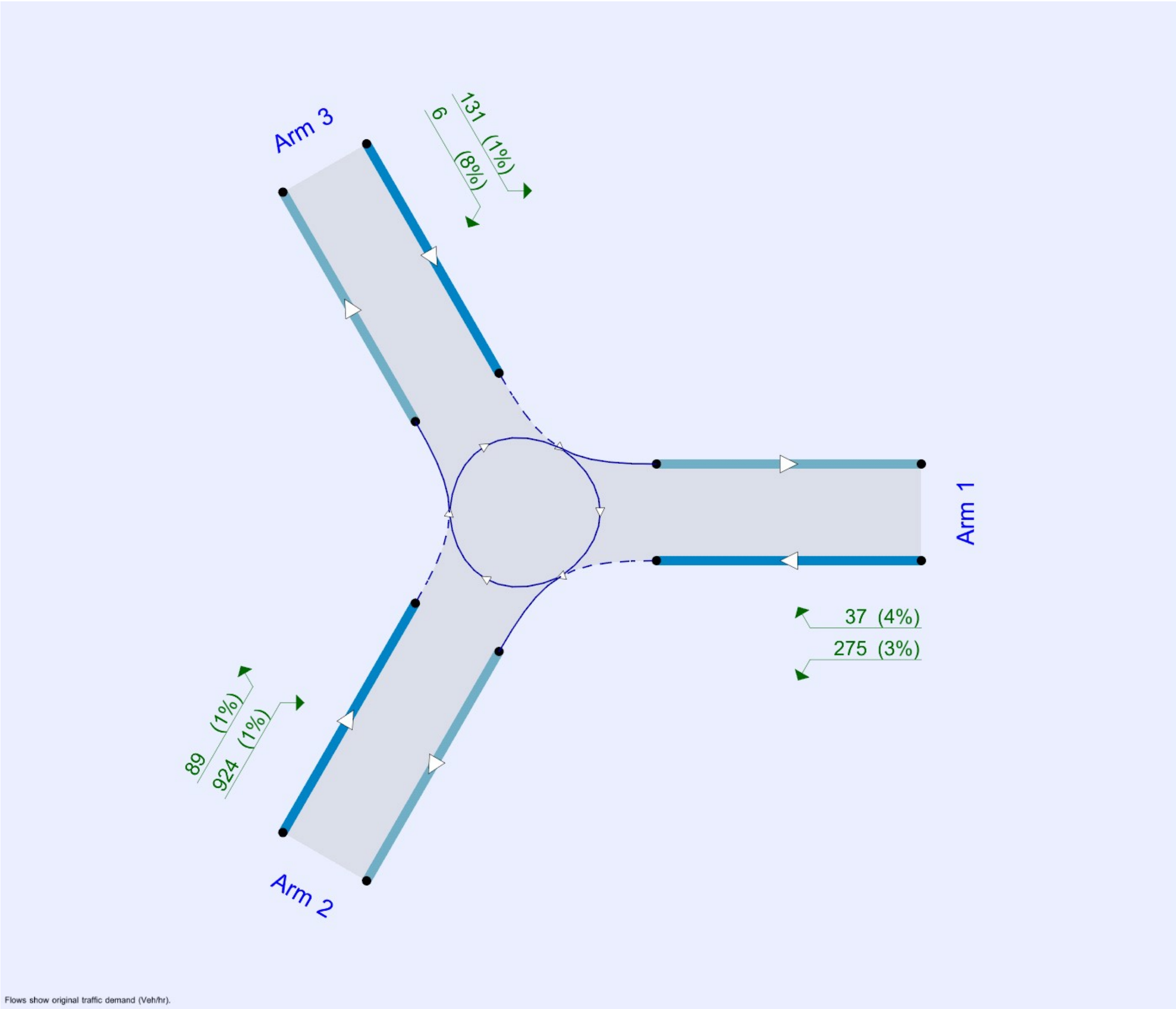
File summary

File Description

Title	
Location	
Site number	
Date	03/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	5.74	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	High Street	
2	Harwell Road	
3	Milton Road	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.06	3.06	4.72	3.0	8.00	6.00	0.0	
2	2.57	2.57	9.65	8.0	7.00	8.00	0.0	
3	3.20	3.20	3.20	0.0	11.00	10.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.615	1063
2	0.645	1148
3	0.600	946

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	326	100.000
2		✓	203	100.000
3		✓	203	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	281	45
	2	177	0	26
	3	81	122	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	8	0
	2	6	0	0
	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.39	6.45	0.6	A
2	0.21	4.30	0.3	A
3	0.27	6.04	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	245	91	942	0.261	244	0.3	5.150	A
2	153	34	1071	0.143	152	0.2	3.917	A
3	153	133	859	0.178	152	0.2	5.087	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	293	110	931	0.315	293	0.5	5.634	A
2	182	40	1066	0.171	182	0.2	4.072	A
3	182	159	842	0.217	182	0.3	5.455	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	359	134	917	0.391	358	0.6	6.434	A
2	224	49	1061	0.211	223	0.3	4.297	A
3	224	195	819	0.273	223	0.4	6.033	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	359	134	917	0.391	359	0.6	6.451	A
2	224	50	1061	0.211	224	0.3	4.299	A
3	224	195	819	0.273	224	0.4	6.041	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	293	110	931	0.315	294	0.5	5.657	A
2	182	41	1066	0.171	183	0.2	4.076	A
3	182	159	842	0.217	183	0.3	5.468	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	245	92	941	0.261	246	0.4	5.181	A
2	153	34	1070	0.143	153	0.2	3.924	A
3	153	133	858	0.178	153	0.2	5.108	A

2020, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 88% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	6.42	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	240	100.000
2		✓	535	100.000
3		✓	97	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	175	65
	2	451	0	84
	3	91	6	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	3	1
	2	1	0	0
	3	1	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.26	4.68	0.3	A
2	0.54	7.15	1.2	A
3	0.17	6.80	0.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	181	4	1035	0.175	180	0.2	4.207	A
2	403	49	1107	0.364	401	0.6	5.078	A
3	73	338	730	0.099	72	0.1	5.465	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	5	1034	0.209	216	0.3	4.397	A
2	481	58	1101	0.437	480	0.8	5.792	A
3	87	405	690	0.126	87	0.1	5.960	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	264	6	1033	0.256	264	0.3	4.677	A
2	589	71	1093	0.539	588	1.2	7.107	A
3	106	495	636	0.167	106	0.2	6.783	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	264	6	1033	0.256	264	0.3	4.681	A
2	589	72	1092	0.539	589	1.2	7.150	A
3	106	497	636	0.167	106	0.2	6.798	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	5	1034	0.209	216	0.3	4.402	A
2	481	59	1101	0.437	482	0.8	5.837	A
3	87	407	689	0.126	87	0.1	5.978	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	181	4	1035	0.175	181	0.2	4.218	A
2	403	49	1107	0.364	404	0.6	5.125	A
3	73	340	729	0.100	73	0.1	5.487	A

2024 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	5.42	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	321	100.000
2		✓	168	100.000
3		✓	210	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	272	49
	2	143	0	25
	3	102	108	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	3	0
	2	3	0	0
	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.37	5.88	0.6	A
2	0.17	4.00	0.2	A
3	0.27	5.86	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	81	988	0.245	240	0.3	4.808	A
2	126	37	1097	0.115	126	0.1	3.707	A
3	158	107	876	0.180	157	0.2	5.002	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	289	97	978	0.295	288	0.4	5.215	A
2	151	44	1092	0.138	151	0.2	3.824	A
3	189	128	863	0.219	189	0.3	5.337	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	353	119	965	0.366	353	0.6	5.872	A
2	185	54	1086	0.170	185	0.2	3.994	A
3	231	157	845	0.274	231	0.4	5.856	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	353	119	965	0.366	353	0.6	5.885	A
2	185	54	1086	0.170	185	0.2	3.996	A
3	231	157	845	0.274	231	0.4	5.863	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	289	97	978	0.295	289	0.4	5.230	A
2	151	44	1092	0.138	151	0.2	3.829	A
3	189	129	863	0.219	189	0.3	5.349	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	81	988	0.245	242	0.3	4.830	A
2	126	37	1096	0.115	127	0.1	3.714	A
3	158	108	876	0.181	158	0.2	5.022	A

2024 with, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	4.73	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	209	100.000
2		✓	290	100.000
3		✓	107	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	138	71
	2	211	0	79
	3	101	6	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	3	2
	2	1	0	0
	3	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.22	4.49	0.3	A
2	0.29	4.68	0.4	A
3	0.15	5.35	0.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	157	4	1033	0.152	157	0.2	4.106	A
2	218	53	1105	0.198	217	0.2	4.050	A
3	81	158	835	0.096	80	0.1	4.768	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	188	5	1032	0.182	188	0.2	4.262	A
2	261	64	1098	0.237	260	0.3	4.295	A
3	96	189	816	0.118	96	0.1	4.998	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	230	7	1031	0.223	230	0.3	4.491	A
2	319	78	1089	0.293	319	0.4	4.673	A
3	118	232	791	0.149	118	0.2	5.344	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	230	7	1031	0.223	230	0.3	4.492	A
2	319	78	1089	0.293	319	0.4	4.677	A
3	118	232	791	0.149	118	0.2	5.348	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	188	5	1032	0.182	188	0.2	4.266	A
2	261	64	1098	0.237	261	0.3	4.302	A
3	96	190	816	0.118	96	0.1	5.005	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	157	4	1033	0.152	158	0.2	4.114	A
2	218	54	1105	0.198	219	0.2	4.063	A
3	81	159	834	0.097	81	0.1	4.776	A

2024 without, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	7.05	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	369	100.000
2		✓	465	100.000
3		✓	210	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	324	45
	2	440	0	25
	3	96	114	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	9	0
	2	3	0	0
	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.44	7.10	0.8	A
2	0.47	6.28	0.9	A
3	0.36	8.71	0.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	278	85	936	0.297	276	0.4	5.440	A
2	350	34	1095	0.320	348	0.5	4.806	A
3	158	329	740	0.214	157	0.3	6.169	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	332	102	927	0.358	331	0.6	6.041	A
2	418	40	1091	0.383	417	0.6	5.338	A
3	189	395	699	0.270	188	0.4	7.043	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	406	125	914	0.445	405	0.8	7.070	A
2	512	49	1086	0.472	511	0.9	6.253	A
3	231	483	645	0.359	230	0.6	8.671	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	406	126	913	0.445	406	0.8	7.098	A
2	512	50	1086	0.472	512	0.9	6.276	A
3	231	484	644	0.359	231	0.6	8.715	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	332	103	926	0.358	333	0.6	6.073	A
2	418	41	1091	0.383	419	0.6	5.364	A
3	189	397	698	0.270	190	0.4	7.084	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	278	86	936	0.297	278	0.4	5.481	A
2	350	34	1095	0.320	351	0.5	4.838	A
3	158	332	738	0.214	158	0.3	6.217	A

2024 without, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 89% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	7.62	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	274	100.000
2		✓	627	100.000
3		✓	107	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	**2**	**3**
From	**1**	0	223	51
	2	549	0	78
	3	101	6	0

Vehicle Mix

HV %s

		To		
		1	**2**	**3**
From	**1**	0	3	1
	2	1	0	1
	3	1	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.29	4.93	0.4	A
2	0.63	8.77	1.7	A
3	0.21	7.92	0.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	206	4	1033	0.200	205	0.2	4.345	A
2	472	38	1112	0.424	469	0.7	5.574	A
3	81	411	688	0.117	80	0.1	5.919	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	246	5	1032	0.239	246	0.3	4.579	A
2	564	46	1107	0.509	562	1.0	6.592	A
3	96	493	639	0.151	96	0.2	6.630	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	302	7	1031	0.293	301	0.4	4.930	A
2	690	56	1101	0.627	688	1.6	8.667	A
3	118	602	573	0.205	117	0.3	7.891	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	302	7	1031	0.293	302	0.4	4.933	A
2	690	56	1101	0.627	690	1.7	8.767	A
3	118	604	572	0.206	118	0.3	7.924	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	246	5	1032	0.239	247	0.3	4.586	A
2	564	46	1107	0.509	566	1.1	6.680	A
3	96	496	637	0.151	97	0.2	6.666	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	206	5	1033	0.200	207	0.3	4.359	A
2	472	38	1112	0.424	473	0.7	5.647	A
3	81	414	686	0.118	81	0.1	5.956	A

2034 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	6.31	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	426	100.000
2		✓	232	100.000
3		✓	212	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	379	47
	2	206	0	26
	3	107	105	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	4	0
	2	3	0	0
	3	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.49	7.37	1.0	A
2	0.24	4.33	0.3	A
3	0.29	6.33	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	321	79	980	0.327	319	0.5	5.433	A
2	175	35	1096	0.159	174	0.2	3.899	A
3	160	154	847	0.188	159	0.2	5.226	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	383	94	970	0.395	382	0.6	6.117	A
2	209	42	1092	0.191	208	0.2	4.073	A
3	191	185	828	0.230	190	0.3	5.643	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	469	115	958	0.490	468	0.9	7.331	A
2	255	52	1086	0.235	255	0.3	4.332	A
3	233	227	802	0.291	233	0.4	6.312	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	469	116	958	0.490	469	1.0	7.368	A
2	255	52	1086	0.235	255	0.3	4.334	A
3	233	227	802	0.291	233	0.4	6.327	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	383	95	970	0.395	384	0.7	6.158	A
2	209	42	1092	0.191	209	0.2	4.077	A
3	191	185	828	0.230	191	0.3	5.659	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	321	79	979	0.328	321	0.5	5.479	A
2	175	35	1096	0.159	175	0.2	3.907	A
3	160	155	846	0.189	160	0.2	5.246	A

2034 with, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 85% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	6.05	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	404	100.000
2		✓	428	100.000
3		✓	138	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	322	82
	2	351	0	77
	3	133	5	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	1	4
	2	1	0	0
	3	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.43	6.02	0.7	A
2	0.44	5.92	0.8	A
3	0.22	6.50	0.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	304	4	1044	0.291	303	0.4	4.846	A
2	322	61	1098	0.293	321	0.4	4.621	A
3	104	263	779	0.133	103	0.2	5.320	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	363	4	1043	0.348	363	0.5	5.287	A
2	385	74	1090	0.353	384	0.5	5.098	A
3	124	315	748	0.166	124	0.2	5.766	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	445	5	1043	0.427	444	0.7	6.005	A
2	471	90	1079	0.437	470	0.8	5.906	A
3	152	386	706	0.215	152	0.3	6.494	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	445	6	1043	0.427	445	0.7	6.021	A
2	471	90	1079	0.437	471	0.8	5.923	A
3	152	386	705	0.215	152	0.3	6.504	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	363	5	1043	0.348	364	0.5	5.306	A
2	385	74	1090	0.353	386	0.6	5.120	A
3	124	316	747	0.166	124	0.2	5.780	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	304	4	1044	0.291	305	0.4	4.876	A
2	322	62	1098	0.294	323	0.4	4.647	A
3	104	265	778	0.133	104	0.2	5.340	A

2034 without, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 87% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	39.70	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	446	100.000
2		✓	952	100.000
3		✓	216	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	403	43
	2	925	0	27
	3	103	113	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	9	0
	2	3	0	0
	3	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.54	8.54	1.2	A
2	0.97	54.76	15.1	F
3	0.74	40.96	2.5	E

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	336	84	935	0.359	334	0.6	5.965	A
2	717	32	1096	0.654	709	1.8	9.156	A
3	163	689	516	0.315	161	0.5	10.091	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	401	101	925	0.433	400	0.8	6.844	A
2	856	39	1092	0.784	850	3.4	14.503	B
3	194	826	432	0.449	193	0.8	14.936	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	122	914	0.537	490	1.1	8.456	A
2	1048	47	1086	0.965	1014	12.0	38.028	E
3	238	985	335	0.710	232	2.2	33.425	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	124	912	0.538	491	1.2	8.538	A
2	1048	47	1086	0.965	1036	15.1	54.763	F
3	238	1006	322	0.739	236	2.5	40.962	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	401	105	923	0.434	402	0.8	6.935	A
2	856	39	1091	0.784	901	3.9	22.394	C
3	194	875	402	0.483	200	1.0	18.373	C

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	336	86	934	0.360	337	0.6	6.035	A
2	717	32	1095	0.654	725	1.9	9.907	A
3	163	704	507	0.321	165	0.5	10.581	B

2034 without, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 90% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	58.37	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	312	100.000
2		✓	1013	100.000
3		✓	137	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	275	37
	2	924	0	89
	3	131	6	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	3	4
	2	1	0	1
	3	1	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.33	5.27	0.5	A
2	1.00	80.44	25.0	F
3	0.44	18.75	0.8	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	235	4	1028	0.229	234	0.3	4.527	A
2	763	28	1118	0.682	754	2.1	9.679	A
3	103	688	523	0.197	102	0.2	8.538	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	280	5	1027	0.273	280	0.4	4.817	A
2	911	33	1115	0.817	903	4.1	16.356	C
3	123	823	442	0.279	123	0.4	11.253	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	7	1026	0.335	343	0.5	5.264	A
2	1115	41	1110	1.005	1062	17.5	48.666	E
3	151	968	355	0.424	150	0.7	17.375	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	7	1026	0.335	344	0.5	5.271	A
2	1115	41	1110	1.005	1086	25.0	80.443	F
3	151	990	342	0.441	151	0.8	18.752	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	280	5	1027	0.273	281	0.4	4.829	A
2	911	33	1115	0.817	990	5.1	38.876	E
3	123	903	394	0.312	124	0.5	13.399	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	235	5	1028	0.229	235	0.3	4.545	A
2	763	28	1118	0.682	774	2.2	10.781	B
3	103	706	512	0.201	104	0.3	8.839	A

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: OFF 9 A Junction-High Street_High Street North.j9
Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF9 - Junction 26-High Street_Church Street_Brook Street
Report generation date: 02/07/2021 09:01:30

»2020, AM
»2020, PM
»2024 with, AM
»2024 with, PM
»2024 without, AM
»2024 without, PM
»2034 with, AM
»2034 with, PM
»2034 without, AM
»2034 without, PM

Summary of junction performance

	AM					PM				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
	2020									
Stream B-AC	D1	0.7	10.89	0.41	B	D2	0.6	9.34	0.36	A
Stream C-AB		0.8	10.90	0.44	B		7.2	45.92	0.89	E
	2024 with									
Stream B-AC	D3	0.8	10.54	0.43	B	D4	0.4	8.52	0.30	A
Stream C-AB		0.8	10.60	0.43	B		0.9	10.16	0.45	B
	2024 without									
Stream B-AC	D5	0.9	12.64	0.49	B	D6	0.6	9.76	0.39	A
Stream C-AB		17.7	106.92	1.00	F		43.7	213.76	1.10	F
	2034 with									
Stream B-AC	D7	1.1	12.74	0.53	B	D8	1.6	15.46	0.62	C
Stream C-AB		1.3	13.20	0.55	B		2.4	17.65	0.69	C
	2034 without									
Stream B-AC	D9	1.2	14.28	0.54	B	D10	0.7	10.04	0.40	B
Stream C-AB		493.5	2880.23	1.88	F		447.0	2448.09	1.76	F

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

File summary

File Description

Title	
Location	
Site number	
Date	03/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		8.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	High Street		Major
B	High Street North		Minor
C	High Street (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.82			30.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.94	57	22

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	504	0.088	0.224	0.141	0.319
B-C	634	0.094	0.237	-	-
C-B	591	0.221	0.221	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	99	100.000
B		✓	206	100.000
C		✓	270	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	99
	B	0	0	206
	C	64	206	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	2
	B	0	0	9
	C	3	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.41	10.89	0.7	B
C-AB	0.44	10.90	0.8	B
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	565	0.275	154	0.4	8.724	A
C-AB	169	580	0.291	167	0.4	8.688	A
C-A	34			34			
A-B	0			0			
A-C	75			75			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	562	0.330	185	0.5	9.540	A
C-AB	206	584	0.352	205	0.6	9.500	A
C-A	37			37			
A-B	0			0			
A-C	89			89			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	557	0.407	226	0.7	10.854	B
C-AB	258	589	0.438	257	0.8	10.837	B
C-A	39			39			
A-B	0			0			
A-C	109			109			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	557	0.407	227	0.7	10.894	B
C-AB	258	589	0.438	258	0.8	10.897	B
C-A	39			39			
A-B	0			0			
A-C	109			109			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	562	0.330	186	0.5	9.602	A
C-AB	206	584	0.352	207	0.6	9.573	A
C-A	37			37			
A-B	0			0			
A-C	89			89			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	565	0.275	156	0.4	8.806	A
C-AB	169	580	0.292	170	0.4	8.784	A
C-A	34			34			
A-B	0			0			
A-C	75			75			

2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		32.93	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	33	100.000
B		✓	201	100.000
C		✓	532	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	33
	B	0	0	201
	C	93	439	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	3
	B	0	0	3
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.36	9.34	0.6	A
C-AB	0.89	45.92	7.2	E
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	151	609	0.248	150	0.3	7.817	A
C-AB	372	627	0.593	366	1.5	13.536	B
C-A	28			28			
A-B	0			0			
A-C	25			25			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	181	608	0.297	180	0.4	8.407	A
C-AB	455	636	0.716	451	2.5	19.196	C
C-A	23			23			
A-B	0			0			
A-C	30			30			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	221	607	0.365	221	0.6	9.313	A
C-AB	576	647	0.890	561	6.3	37.214	E
C-A	10			10			
A-B	0			0			
A-C	36			36			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	221	607	0.365	221	0.6	9.343	A
C-AB	579	649	0.891	575	7.2	45.918	E
C-A	7			7			
A-B	0			0			
A-C	36			36			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	181	608	0.297	181	0.4	8.445	A
C-AB	458	638	0.718	475	3.0	24.200	C
C-A	20			20			
A-B	0			0			
A-C	30			30			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	151	609	0.248	152	0.3	7.874	A
C-AB	373	628	0.594	379	1.6	14.767	B
C-A	27			27			
A-B	0			0			
A-C	25			25			

2024 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		8.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	80	100.000
B		✓	235	100.000
C		✓	266	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	80
	B	0	0	235
	C	53	213	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	3
	B	0	0	2
	C	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.43	10.54	0.8	B
C-AB	0.43	10.60	0.8	B
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	177	607	0.292	175	0.4	8.313	A
C-AB	172	593	0.290	170	0.4	8.477	A
C-A	28			28			
A-B	0			0			
A-C	60			60			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	211	604	0.350	211	0.5	9.141	A
C-AB	208	596	0.349	208	0.6	9.259	A
C-A	31			31			
A-B	0			0			
A-C	72			72			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	259	600	0.431	258	0.7	10.489	B
C-AB	260	600	0.433	259	0.8	10.539	B
C-A	33			33			
A-B	0			0			
A-C	88			88			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	259	600	0.431	259	0.8	10.541	B
C-AB	260	600	0.433	260	0.8	10.596	B
C-A	33			33			
A-B	0			0			
A-C	88			88			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	211	604	0.350	212	0.5	9.203	A
C-AB	208	596	0.349	209	0.6	9.330	A
C-A	31			31			
A-B	0			0			
A-C	72			72			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	177	607	0.292	177	0.4	8.395	A
C-AB	172	594	0.290	173	0.4	8.570	A
C-A	28			28			
A-B	0			0			
A-C	60			60			

2024 with, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		7.86	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	34	100.000
B		✓	167	100.000
C		✓	311	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	34
	B	0	0	167
	C	89	222	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	2
	B	0	0	3
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.30	8.52	0.4	A
C-AB	0.45	10.16	0.9	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	609	0.206	125	0.3	7.416	A
C-AB	187	625	0.300	185	0.5	8.162	A
C-A	47			47			
A-B	0			0			
A-C	26			26			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	150	608	0.247	150	0.3	7.852	A
C-AB	229	633	0.361	228	0.6	8.890	A
C-A	51			51			
A-B	0			0			
A-C	31			31			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	606	0.303	183	0.4	8.502	A
C-AB	289	644	0.449	288	0.9	10.100	B
C-A	54			54			
A-B	0			0			
A-C	37			37			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	606	0.303	184	0.4	8.519	A
C-AB	289	644	0.449	289	0.9	10.159	B
C-A	54			54			
A-B	0			0			
A-C	37			37			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	150	608	0.247	151	0.3	7.877	A
C-AB	229	633	0.362	230	0.6	8.965	A
C-A	51			51			
A-B	0			0			
A-C	31			31			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	609	0.206	126	0.3	7.456	A
C-AB	187	625	0.300	188	0.5	8.255	A
C-A	47			47			
A-B	0			0			
A-C	26			26			

2024 without, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		66.57	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	104	100.000
B		✓	246	100.000
C		✓	545	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	104
	B	0	0	246
	C	69	476	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	4
	B	0	0	9
	C	3	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.49	12.64	0.9	B
C-AB	1.00	106.92	17.7	F
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	564	0.329	183	0.5	9.419	A
C-AB	393	592	0.664	385	2.0	16.868	C
C-A	17			17			
A-B	0			0			
A-C	78			78			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	221	560	0.395	221	0.6	10.577	B
C-AB	479	596	0.803	471	3.7	27.580	D
C-A	11			11			
A-B	0			0			
A-C	93			93			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	271	555	0.488	270	0.9	12.544	B
C-AB	600	601	0.999	564	12.7	67.802	F
C-A	0			0			
A-B	0			0			
A-C	115			115			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	271	555	0.488	271	0.9	12.640	B
C-AB	600	601	0.999	580	17.7	106.919	F
C-A	0			0			
A-B	0			0			
A-C	115			115			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	221	560	0.395	222	0.7	10.686	B
C-AB	485	602	0.806	534	5.3	65.505	F
C-A	5			5			
A-B	0			0			
A-C	93			93			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	564	0.329	186	0.5	9.546	A
C-AB	395	594	0.665	407	2.2	20.513	C
C-A	16			16			
A-B	0			0			
A-C	78			78			

2024 without, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		152.56	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	46	100.000
B		✓	213	100.000
C		✓	645	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	46
	B	0	0	213
	C	105	540	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	3
	B	0	0	3
	C	2	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.39	9.76	0.6	A
C-AB	1.10	213.76	43.7	F
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	607	0.264	159	0.4	8.035	A
C-AB	465	631	0.737	454	2.7	19.428	C
C-A	21			21			
A-B	0			0			
A-C	35			35			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	605	0.316	191	0.5	8.679	A
C-AB	571	641	0.892	557	6.4	38.278	E
C-A	9			9			
A-B	0			0			
A-C	41			41			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	603	0.389	234	0.6	9.727	A
C-AB	710	645	1.102	630	26.4	109.741	F
C-A	0			0			
A-B	0			0			
A-C	51			51			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	603	0.389	234	0.6	9.761	A
C-AB	710	645	1.101	641	43.7	210.124	F
C-A	0			0			
A-B	0			0			
A-C	51			51			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	605	0.316	192	0.5	8.726	A
C-AB	580	647	0.896	631	30.8	213.758	F
C-A	0			0			
A-B	0			0			
A-C	41			41			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	607	0.264	161	0.4	8.076	A
C-AB	480	644	0.746	588	3.8	90.891	F
C-A	5			5			
A-B	0			0			
A-C	35			35			

2034 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		10.62	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	95	100.000
B		✓	285	100.000
C		✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	95
	B	0	0	285
	C	62	270	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	3
	B	0	0	2
	C	3	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.53	12.74	1.1	B
C-AB	0.55	13.20	1.3	B
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	604	0.355	212	0.5	9.141	A
C-AB	220	601	0.367	218	0.6	9.353	A
C-A	30			30			
A-B	0			0			
A-C	72			72			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	256	601	0.426	255	0.7	10.401	B
C-AB	268	604	0.443	267	0.8	10.652	B
C-A	31			31			
A-B	0			0			
A-C	85			85			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	314	596	0.526	312	1.1	12.618	B
C-AB	335	608	0.551	333	1.3	13.030	B
C-A	30			30			
A-B	0			0			
A-C	105			105			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	314	596	0.526	314	1.1	12.735	B
C-AB	335	609	0.551	335	1.3	13.196	B
C-A	30			30			
A-B	0			0			
A-C	105			105			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	256	601	0.426	258	0.8	10.528	B
C-AB	268	604	0.443	270	0.9	10.829	B
C-A	31			31			
A-B	0			0			
A-C	85			85			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	604	0.355	215	0.6	9.278	A
C-AB	221	601	0.367	222	0.6	9.521	A
C-A	29			29			
A-B	0			0			
A-C	72			72			

2034 with, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		14.89	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	41	100.000
B		✓	349	100.000
C		✓	452	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	41
	B	0	0	349
	C	113	339	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	2
	B	0	0	1
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.62	15.46	1.6	C
C-AB	0.69	17.65	2.4	C
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	263	620	0.424	260	0.7	9.935	A
C-AB	294	641	0.459	291	0.9	10.182	B
C-A	46			46			
A-B	0			0			
A-C	31			31			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	314	619	0.507	313	1.0	11.721	B
C-AB	362	651	0.555	360	1.3	12.314	B
C-A	45			45			
A-B	0			0			
A-C	37			37			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	384	617	0.623	382	1.6	15.182	C
C-AB	460	665	0.692	456	2.4	17.019	C
C-A	37			37			
A-B	0			0			
A-C	45			45			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	384	617	0.623	384	1.6	15.463	C
C-AB	461	666	0.693	461	2.4	17.651	C
C-A	37			37			
A-B	0			0			
A-C	45			45			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	314	619	0.507	316	1.1	11.985	B
C-AB	363	652	0.556	367	1.4	12.832	B
C-A	44			44			
A-B	0			0			
A-C	37			37			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	263	620	0.424	264	0.7	10.146	B
C-AB	295	642	0.460	297	1.0	10.518	B
C-A	45			45			
A-B	0			0			
A-C	31			31			

2034 without, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		2051.01	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	117	100.000
B		✓	268	100.000
C		✓	998	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	117
	B	0	0	268
	C	97	901	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	5
	B	0	0	10
	C	3	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.54	14.28	1.2	B
C-AB	1.88	2880.23	493.5	F
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	202	556	0.363	200	0.6	10.035	B
C-AB	751	594	1.266	580	42.9	144.670	F
C-A	0			0			
A-B	0			0			
A-C	88			88			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	241	552	0.436	240	0.8	11.503	B
C-AB	897	590	1.521	589	119.9	510.200	F
C-A	0			0			
A-B	0			0			
A-C	105			105			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	295	547	0.540	294	1.1	14.119	B
C-AB	1099	584	1.881	584	248.6	1142.773	F
C-A	0			0			
A-B	0			0			
A-C	129			129			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	295	547	0.540	295	1.2	14.278	B
C-AB	1099	584	1.881	584	377.2	1935.889	F
C-A	0			0			
A-B	0			0			
A-C	129			129			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	241	552	0.436	242	0.8	11.672	B
C-AB	897	590	1.521	590	454.1	2533.800	F
C-A	0			0			
A-B	0			0			
A-C	105			105			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	202	556	0.363	203	0.6	10.209	B
C-AB	751	594	1.266	594	493.5	2880.231	F
C-A	0			0			
A-B	0			0			
A-C	88			88			

2034 without, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		1917.11	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	56	100.000
B		✓	220	100.000
C		✓	1012	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	56
	B	0	0	220
	C	141	871	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	3
	B	0	0	3
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.40	10.04	0.7	B
C-AB	1.76	2448.09	447.0	F
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	605	0.274	164	0.4	8.133	A
C-AB	762	636	1.198	618	36.1	116.675	F
C-A	0			0			
A-B	0			0			
A-C	42			42			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	198	603	0.328	197	0.5	8.858	A
C-AB	910	634	1.435	633	105.1	412.898	F
C-A	0			0			
A-B	0			0			
A-C	50			50			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	242	601	0.403	241	0.7	10.003	B
C-AB	1114	631	1.765	631	225.9	951.832	F
C-A	0			0			
A-B	0			0			
A-C	62			62			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	242	601	0.403	242	0.7	10.042	B
C-AB	1114	631	1.765	631	346.6	1639.388	F
C-A	0			0			
A-B	0			0			
A-C	62			62			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	198	603	0.328	198	0.5	8.910	A
C-AB	910	634	1.435	634	415.5	2166.706	F
C-A	0			0			
A-B	0			0			
A-C	50			50			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	605	0.274	166	0.4	8.206	A
C-AB	762	636	1.198	636	447.0	2448.089	F
C-A	0			0			
A-B	0			0			
A-C	42			42			

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: OFF 9 B Junction-Brooks Street_High Street.j9
Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF9 - Junction 26-High Street_Church Street_Brook Street
Report generation date: 02/07/2021 09:02:29

Summary of junction performance

	AM					PM				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
	2020									
Stream B-AC	D1	1.3	21.63	0.58	C	D2	46.8	376.39	1.19	F
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2024 with									
Stream B-AC	D3	1.6	24.55	0.62	C	D4	1.4	21.73	0.58	C
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2024 without									
Stream B-AC	D5	87.4	748.34	1.35	F	D6	134.9	1084.24	1.47	F
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2034 with									
Stream B-AC	D7	4.4	57.26	0.84	F	D8	20.4	194.32	1.06	F
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2034 without									
Stream B-AC	D9	654.4	5432.31	2.69	F	D10	577.1	4565.14	2.43	F
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A

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

File summary

File Description

Title	
Location	
Site number	
Date	03/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		5.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Church Street		Major
B	High Street		Minor
C	Brooks Street		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.03			33.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.20	83	17

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	523	0.095	0.240	0.151	0.343
B-C	647	0.099	0.250	-	-
C-B	593	0.229	0.229	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	339	100.000
B		✓	206	100.000
C		✓	299	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	206	133
	B	206	0	0
	C	299	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	9	3
	B	5	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.58	21.63	1.3	C
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	426	0.364	153	0.6	13.076	B
C-AB	0	525	0.000	0	0.0	0.000	A
C-A	225			225			
A-B	155			155			
A-C	100			100			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	412	0.449	184	0.8	15.736	C
C-AB	0	513	0.000	0	0.0	0.000	A
C-A	269			269			
A-B	185			185			
A-C	120			120			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	393	0.578	225	1.3	21.171	C
C-AB	0	497	0.000	0	0.0	0.000	A
C-A	329			329			
A-B	227			227			
A-C	146			146			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	393	0.578	227	1.3	21.634	C
C-AB	0	497	0.000	0	0.0	0.000	A
C-A	329			329			
A-B	227			227			
A-C	146			146			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	412	0.449	187	0.8	16.146	C
C-AB	0	513	0.000	0	0.0	0.000	A
C-A	269			269			
A-B	185			185			
A-C	120			120			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	426	0.364	156	0.6	13.388	B
C-AB	0	525	0.000	0	0.0	0.000	A
C-A	225			225			
A-B	155			155			
A-C	100			100			

2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		158.87	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	440	100.000
B		✓	439	100.000
C		✓	154	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	201	239
	B	439	0	0
	C	154	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	3	1
	B	1	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	1.19	376.39	46.8	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	331	442	0.748	320	2.6	27.586	D
C-AB	0	508	0.000	0	0.0	0.000	A
C-A	116			116			
A-B	151			151			
A-C	180			180			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	395	427	0.924	379	6.6	59.741	F
C-AB	0	493	0.000	0	0.0	0.000	A
C-A	138			138			
A-B	181			181			
A-C	215			215			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	483	407	1.188	400	27.3	174.767	F
C-AB	0	473	0.000	0	0.0	0.000	A
C-A	170			170			
A-B	221			221			
A-C	263			263			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	483	407	1.188	405	46.8	342.698	F
C-AB	0	473	0.000	0	0.0	0.000	A
C-A	170			170			
A-B	221			221			
A-C	263			263			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	395	427	0.924	418	40.9	376.387	F
C-AB	0	493	0.000	0	0.0	0.000	A
C-A	138			138			
A-B	181			181			
A-C	215			215			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	331	442	0.748	431	15.7	243.162	F
C-AB	0	508	0.000	0	0.0	0.000	A
C-A	116			116			
A-B	151			151			
A-C	180			180			

2024 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		5.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	423	100.000
B		✓	213	100.000
C		✓	345	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	235	188
	B	213	0	0
	C	345	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	3
	B	2	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.62	24.55	1.6	C
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	422	0.380	158	0.6	13.509	B
C-AB	0	513	0.000	0	0.0	0.000	A
C-A	260			260			
A-B	177			177			
A-C	142			142			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	405	0.473	190	0.9	16.715	C
C-AB	0	499	0.000	0	0.0	0.000	A
C-A	310			310			
A-B	211			211			
A-C	169			169			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	380	0.617	232	1.5	23.800	C
C-AB	0	479	0.000	0	0.0	0.000	A
C-A	380			380			
A-B	259			259			
A-C	207			207			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	380	0.617	234	1.6	24.552	C
C-AB	0	479	0.000	0	0.0	0.000	A
C-A	380			380			
A-B	259			259			
A-C	207			207			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	405	0.473	194	0.9	17.287	C
C-AB	0	499	0.000	0	0.0	0.000	A
C-A	310			310			
A-B	211			211			
A-C	169			169			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	422	0.380	162	0.6	13.876	B
C-AB	0	513	0.000	0	0.0	0.000	A
C-A	260			260			
A-B	177			177			
A-C	142			142			

2024 with, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		5.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	431	100.000
B		✓	210	100.000
C		✓	189	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	154	277
	B	210	0	0
	C	189	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.58	21.73	1.4	C
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	158	435	0.364	156	0.6	12.812	B
C-AB	0	512	0.000	0	0.0	0.000	A
C-A	142			142			
A-B	116			116			
A-C	209			209			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	419	0.451	188	0.8	15.530	C
C-AB	0	498	0.000	0	0.0	0.000	A
C-A	170			170			
A-B	138			138			
A-C	249			249			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	396	0.583	229	1.3	21.245	C
C-AB	0	478	0.000	0	0.0	0.000	A
C-A	208			208			
A-B	170			170			
A-C	305			305			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	396	0.583	231	1.4	21.735	C
C-AB	0	478	0.000	0	0.0	0.000	A
C-A	208			208			
A-B	170			170			
A-C	305			305			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	419	0.451	191	0.8	15.947	C
C-AB	0	498	0.000	0	0.0	0.000	A
C-A	170			170			
A-B	138			138			
A-C	249			249			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	158	435	0.364	159	0.6	13.115	B
C-AB	0	512	0.000	0	0.0	0.000	A
C-A	142			142			
A-B	116			116			
A-C	209			209			

2024 without, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		294.80	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	395	100.000
B		✓	476	100.000
C		✓	323	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	246	149
	B	476	0	0
	C	323	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	9	3
	B	3	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	1.35	748.34	87.4	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	358	425	0.843	342	4.1	37.968	E
C-AB	0	513	0.000	0	0.0	0.000	A
C-A	243			243			
A-B	185			185			
A-C	112			112			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	428	409	1.045	390	13.6	104.101	F
C-AB	0	499	0.000	0	0.0	0.000	A
C-A	290			290			
A-B	221			221			
A-C	134			134			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	524	387	1.354	386	48.2	308.411	F
C-AB	0	479	0.000	0	0.0	0.000	A
C-A	356			356			
A-B	271			271			
A-C	164			164			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	524	387	1.354	387	82.5	610.081	F
C-AB	0	479	0.000	0	0.0	0.000	A
C-A	356			356			
A-B	271			271			
A-C	164			164			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	428	409	1.045	408	87.4	748.344	F
C-AB	0	499	0.000	0	0.0	0.000	A
C-A	290			290			
A-B	221			221			
A-C	134			134			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	358	425	0.843	420	71.9	683.106	F
C-AB	0	513	0.000	0	0.0	0.000	A
C-A	243			243			
A-B	185			185			
A-C	112			112			

2024 without, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		500.87	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	447	100.000
B		✓	540	100.000
C		✓	176	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	213	234
	B	540	0	0
	C	176	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	3	1
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	1.47	1084.24	134.9	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	407	440	0.925	381	6.5	49.225	E
C-AB	0	509	0.000	0	0.0	0.000	A
C-A	133			133			
A-B	160			160			
A-C	176			176			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	485	424	1.144	416	23.8	154.182	F
C-AB	0	494	0.000	0	0.0	0.000	A
C-A	158			158			
A-B	191			191			
A-C	210			210			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	595	403	1.474	403	71.7	443.643	F
C-AB	0	473	0.000	0	0.0	0.000	A
C-A	194			194			
A-B	235			235			
A-C	258			258			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	595	403	1.474	403	119.6	845.043	F
C-AB	0	473	0.000	0	0.0	0.000	A
C-A	194			194			
A-B	235			235			
A-C	258			258			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	485	424	1.144	424	134.9	1084.244	F
C-AB	0	494	0.000	0	0.0	0.000	A
C-A	158			158			
A-B	191			191			
A-C	210			210			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	407	440	0.925	436	127.4	1082.222	F
C-AB	0	509	0.000	0	0.0	0.000	A
C-A	133			133			
A-B	160			160			
A-C	176			176			

2034 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		12.83	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	537	100.000
B		✓	270	100.000
C		✓	383	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	285	252
	B	270	0	0
	C	383	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	3
	B	1	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.84	57.26	4.4	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	203	406	0.501	199	1.0	17.118	C
C-AB	0	491	0.000	0	0.0	0.000	A
C-A	288			288			
A-B	215			215			
A-C	190			190			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	243	384	0.631	240	1.6	24.496	C
C-AB	0	472	0.000	0	0.0	0.000	A
C-A	344			344			
A-B	256			256			
A-C	227			227			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	297	355	0.839	288	3.9	48.324	E
C-AB	0	447	0.000	0	0.0	0.000	A
C-A	422			422			
A-B	314			314			
A-C	277			277			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	297	355	0.839	295	4.4	57.264	F
C-AB	0	447	0.000	0	0.0	0.000	A
C-A	422			422			
A-B	314			314			
A-C	277			277			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	243	384	0.631	253	1.8	29.152	D
C-AB	0	472	0.000	0	0.0	0.000	A
C-A	344			344			
A-B	256			256			
A-C	227			227			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	203	406	0.501	206	1.0	18.301	C
C-AB	0	491	0.000	0	0.0	0.000	A
C-A	288			288			
A-B	215			215			
A-C	190			190			

2034 with, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		50.87	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	694	100.000
B		✓	339	100.000
C		✓	250	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	349	345
	B	339	0	0
	C	250	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	1	1
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	1.06	194.32	20.4	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	255	406	0.629	249	1.6	22.175	C
C-AB	0	467	0.000	0	0.0	0.000	A
C-A	188			188			
A-B	263			263			
A-C	260			260			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	305	383	0.796	298	3.3	39.566	E
C-AB	0	444	0.000	0	0.0	0.000	A
C-A	225			225			
A-B	314			314			
A-C	310			310			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	373	351	1.062	334	13.2	112.651	F
C-AB	0	412	0.000	0	0.0	0.000	A
C-A	275			275			
A-B	384			384			
A-C	380			380			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	373	351	1.062	344	20.4	194.321	F
C-AB	0	412	0.000	0	0.0	0.000	A
C-A	275			275			
A-B	384			384			
A-C	380			380			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	305	383	0.796	363	5.8	139.487	F
C-AB	0	444	0.000	0	0.0	0.000	A
C-A	225			225			
A-B	314			314			
A-C	310			310			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	255	406	0.629	271	1.8	29.403	D
C-AB	0	467	0.000	0	0.0	0.000	A
C-A	188			188			
A-B	263			263			
A-C	260			260			

2034 without, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		2820.69	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	453	100.000
B		✓	901	100.000
C		✓	363	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	268	185
	B	901	0	0
	C	363	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	10	3
	B	3	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	2.69	5432.31	654.4	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	678	412	1.645	406	68.0	317.219	F
C-AB	0	502	0.000	0	0.0	0.000	A
C-A	273			273			
A-B	202			202			
A-C	139			139			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	810	394	2.056	394	172.0	1156.644	F
C-AB	0	486	0.000	0	0.0	0.000	A
C-A	326			326			
A-B	241			241			
A-C	166			166			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	992	368	2.694	368	328.0	2439.349	F
C-AB	0	463	0.000	0	0.0	0.000	A
C-A	400			400			
A-B	295			295			
A-C	204			204			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	992	368	2.694	368	483.9	3690.163	F
C-AB	0	463	0.000	0	0.0	0.000	A
C-A	400			400			
A-B	295			295			
A-C	204			204			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	810	394	2.056	394	587.9	4728.473	F
C-AB	0	486	0.000	0	0.0	0.000	A
C-A	326			326			
A-B	241			241			
A-C	166			166			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	678	412	1.645	412	654.4	5432.307	F
C-AB	0	502	0.000	0	0.0	0.000	A
C-A	273			273			
A-B	202			202			
A-C	139			139			

2034 without, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		2553.00	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	445	100.000
B		✓	871	100.000
C		✓	237	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	220	225
	B	871	0	0
	C	237	0	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	3	0
	B	1	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	2.43	4565.14	577.1	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	656	434	1.511	427	57.3	256.083	F
C-AB	0	510	0.000	0	0.0	0.000	A
C-A	178			178			
A-B	166			166			
A-C	169			169			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	783	418	1.874	418	148.6	927.622	F
C-AB	0	495	0.000	0	0.0	0.000	A
C-A	213			213			
A-B	198			198			
A-C	202			202			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	959	395	2.425	395	289.5	2000.170	F
C-AB	0	474	0.000	0	0.0	0.000	A
C-A	261			261			
A-B	242			242			
A-C	248			248			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	959	395	2.425	395	430.4	3108.306	F
C-AB	0	474	0.000	0	0.0	0.000	A
C-A	261			261			
A-B	242			242			
A-C	248			248			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	783	418	1.874	418	521.7	3990.614	F
C-AB	0	495	0.000	0	0.0	0.000	A
C-A	213			213			
A-B	198			198			
A-C	202			202			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	656	434	1.511	434	577.1	4565.139	F
C-AB	0	510	0.000	0	0.0	0.000	A
C-A	178			178			
A-B	166			166			
A-C	169			169			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

For sales and distribution information, program advice and maintenance, contact TRL:
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Filename: OFF 9 C Junction-Church Street_High Street.j9
Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF9 - Junction 26-High Street_Church Street_Brook Street
Report generation date: 02/07/2021 09:03:22

Summary of junction performance

	AM					PM				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
	2020									
Stream B-AC	D1	0.1	6.02	0.11	A	D2	0.2	6.59	0.16	A
Stream C-AB		0.5	5.93	0.23	A		0.1	5.92	0.07	A
	2024 with									
Stream B-AC	D3	0.1	6.01	0.09	A	D4	0.2	6.72	0.15	A
Stream C-AB		0.4	5.57	0.20	A		0.1	5.81	0.08	A
	2024 without									
Stream B-AC	D5	0.1	6.13	0.11	A	D6	0.2	6.82	0.18	A
Stream C-AB		0.5	6.09	0.26	A		0.2	5.96	0.11	A
	2034 with									
Stream B-AC	D7	0.1	6.40	0.11	A	D8	0.9	27.27	0.49	D
Stream C-AB		0.6	5.88	0.26	A		0.6	9.42	0.21	A
	2034 without									
Stream B-AC	D9	0.2	6.61	0.16	A	D10	0.3	7.22	0.24	A
Stream C-AB		0.7	6.39	0.31	A		0.2	5.75	0.13	A

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

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

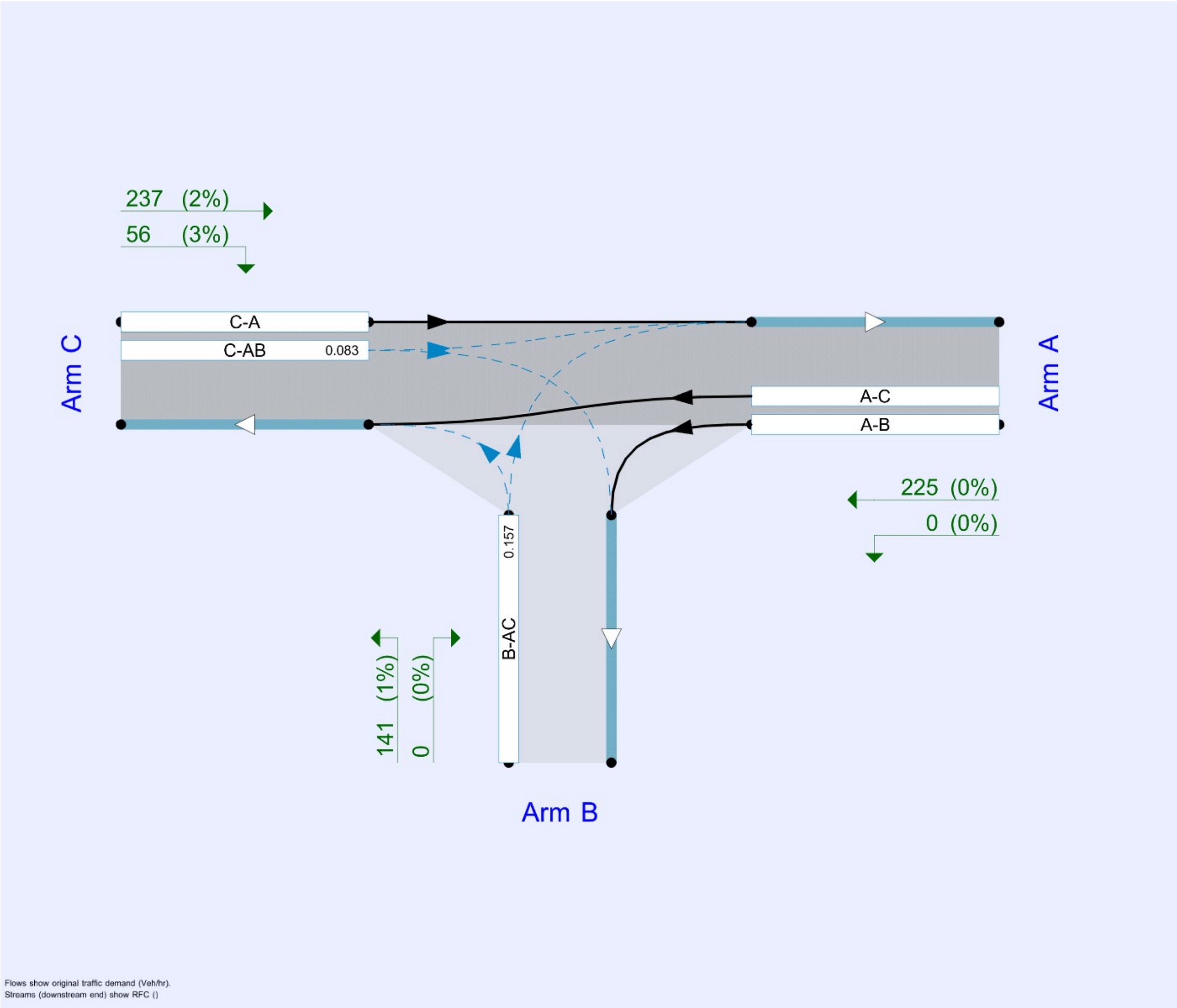
File summary

File Description

Title	
Location	
Site number	
Date	03/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		2.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Church Street		Major
B	High Street		Minor
C	Brook Street		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	5.55			81.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.11	14	55

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	566	0.105	0.265	0.167	0.379
B-C	732	0.114	0.289	-	-
C-B	621	0.245	0.245	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	133	100.000
B		✓	64	100.000
C		✓	398	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	133
	B	0	0	64
	C	299	99	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	3
	B	0	0	3
	C	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.11	6.02	0.1	A
C-AB	0.23	5.93	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	681	0.071	48	0.1	5.679	A
C-AB	107	735	0.146	107	0.2	5.729	A
C-A	192			192			
A-B	0			0			
A-C	100			100			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	676	0.085	57	0.1	5.821	A
C-AB	138	760	0.182	138	0.3	5.792	A
C-A	220			220			
A-B	0			0			
A-C	120			120			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	668	0.105	70	0.1	6.023	A
C-AB	187	795	0.235	186	0.5	5.916	A
C-A	252			252			
A-B	0			0			
A-C	146			146			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	668	0.105	70	0.1	6.023	A
C-AB	187	795	0.235	187	0.5	5.927	A
C-A	251			251			
A-B	0			0			
A-C	146			146			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	676	0.085	58	0.1	5.823	A
C-AB	138	760	0.182	139	0.3	5.806	A
C-A	219			219			
A-B	0			0			
A-C	120			120			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	681	0.071	48	0.1	5.687	A
C-AB	108	735	0.147	108	0.2	5.754	A
C-A	192			192			
A-B	0			0			
A-C	100			100			

2020, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		1.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	239	100.000
B		✓	93	100.000
C		✓	187	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	239
	B	0	0	93
	C	154	33	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	1
	B	0	0	1
	C	3	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.16	6.59	0.2	A
C-AB	0.07	5.92	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	672	0.104	70	0.1	5.967	A
C-AB	30	638	0.047	30	0.1	5.915	A
C-A	110			110			
A-B	0			0			
A-C	180			180			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	84	662	0.126	83	0.1	6.216	A
C-AB	37	646	0.058	37	0.1	5.918	A
C-A	130			130			
A-B	0			0			
A-C	215			215			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	648	0.158	102	0.2	6.589	A
C-AB	49	657	0.074	48	0.1	5.919	A
C-A	157			157			
A-B	0			0			
A-C	263			263			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	648	0.158	102	0.2	6.592	A
C-AB	49	657	0.074	49	0.1	5.924	A
C-A	157			157			
A-B	0			0			
A-C	263			263			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	84	662	0.126	84	0.1	6.222	A
C-AB	37	646	0.058	38	0.1	5.922	A
C-A	130			130			
A-B	0			0			
A-C	215			215			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	672	0.104	70	0.1	5.979	A
C-AB	30	638	0.047	30	0.1	5.923	A
C-A	110			110			
A-B	0			0			
A-C	180			180			

2024 with, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		1.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	188	100.000
B		✓	53	100.000
C		✓	425	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	188
	B	0	0	53
	C	345	80	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	3
	B	0	0	2
	C	2	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.09	6.01	0.1	A
C-AB	0.20	5.57	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	40	676	0.059	40	0.1	5.657	A
C-AB	93	744	0.124	92	0.2	5.514	A
C-A	227			227			
A-B	0			0			
A-C	142			142			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	668	0.071	48	0.1	5.801	A
C-AB	121	773	0.156	120	0.3	5.522	A
C-A	262			262			
A-B	0			0			
A-C	169			169			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	657	0.089	58	0.1	6.013	A
C-AB	166	813	0.204	165	0.4	5.564	A
C-A	302			302			
A-B	0			0			
A-C	207			207			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	657	0.089	58	0.1	6.013	A
C-AB	166	814	0.204	166	0.4	5.573	A
C-A	302			302			
A-B	0			0			
A-C	207			207			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	668	0.071	48	0.1	5.803	A
C-AB	121	773	0.156	121	0.3	5.531	A
C-A	261			261			
A-B	0			0			
A-C	169			169			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	40	676	0.059	40	0.1	5.661	A
C-AB	93	745	0.125	93	0.2	5.534	A
C-A	227			227			
A-B	0			0			
A-C	142			142			

2024 with, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		1.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	286	100.000
B		✓	89	100.000
C		✓	222	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	286
	B	0	0	89
	C	188	34	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	1
	B	0	0	1
	C	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.15	6.72	0.2	A
C-AB	0.08	5.81	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	662	0.101	67	0.1	6.040	A
C-AB	33	653	0.050	32	0.1	5.797	A
C-A	134			134			
A-B	0			0			
A-C	215			215			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	80	650	0.123	80	0.1	6.310	A
C-AB	41	663	0.062	41	0.1	5.788	A
C-A	158			158			
A-B	0			0			
A-C	257			257			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	98	633	0.155	98	0.2	6.719	A
C-AB	54	677	0.080	54	0.1	5.780	A
C-A	190			190			
A-B	0			0			
A-C	315			315			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	98	633	0.155	98	0.2	6.722	A
C-AB	54	677	0.080	54	0.1	5.785	A
C-A	190			190			
A-B	0			0			
A-C	315			315			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	80	650	0.123	80	0.1	6.319	A
C-AB	41	663	0.062	41	0.1	5.795	A
C-A	158			158			
A-B	0			0			
A-C	257			257			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	662	0.101	67	0.1	6.049	A
C-AB	33	653	0.050	33	0.1	5.805	A
C-A	134			134			
A-B	0			0			
A-C	215			215			

2024 without, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		2.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	149	100.000
B		✓	69	100.000
C		✓	427	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	149
	B	0	0	69
	C	323	104	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	3
	B	0	0	3
	C	3	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.11	6.13	0.1	A
C-AB	0.26	6.09	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	52	678	0.077	52	0.1	5.745	A
C-AB	117	734	0.160	116	0.3	5.824	A
C-A	204			204			
A-B	0			0			
A-C	112			112			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	62	672	0.092	62	0.1	5.904	A
C-AB	152	761	0.199	151	0.4	5.907	A
C-A	232			232			
A-B	0			0			
A-C	134			134			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	76	663	0.115	76	0.1	6.131	A
C-AB	207	800	0.259	206	0.5	6.078	A
C-A	263			263			
A-B	0			0			
A-C	164			164			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	76	663	0.115	76	0.1	6.131	A
C-AB	207	800	0.259	207	0.5	6.089	A
C-A	263			263			
A-B	0			0			
A-C	164			164			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	62	672	0.092	62	0.1	5.908	A
C-AB	152	762	0.199	153	0.4	5.923	A
C-A	232			232			
A-B	0			0			
A-C	134			134			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	52	678	0.077	52	0.1	5.753	A
C-AB	118	734	0.160	118	0.3	5.851	A
C-A	204			204			
A-B	0			0			
A-C	112			112			

2024 without, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		1.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	234	100.000
B		✓	105	100.000
C		✓	222	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	234
	B	0	0	105
	C	176	46	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	1
	B	0	0	2
	C	2	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.18	6.82	0.2	A
C-AB	0.11	5.96	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	79	667	0.119	79	0.1	6.112	A
C-AB	43	651	0.067	43	0.1	5.922	A
C-A	124			124			
A-B	0			0			
A-C	176			176			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	94	657	0.144	94	0.2	6.393	A
C-AB	54	661	0.082	54	0.1	5.936	A
C-A	145			145			
A-B	0			0			
A-C	210			210			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	116	644	0.180	115	0.2	6.810	A
C-AB	71	675	0.105	71	0.2	5.962	A
C-A	173			173			
A-B	0			0			
A-C	258			258			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	116	644	0.180	116	0.2	6.816	A
C-AB	71	675	0.105	71	0.2	5.962	A
C-A	173			173			
A-B	0			0			
A-C	258			258			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	94	657	0.144	95	0.2	6.400	A
C-AB	55	661	0.082	55	0.1	5.939	A
C-A	145			145			
A-B	0			0			
A-C	210			210			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	79	667	0.119	79	0.1	6.127	A
C-AB	44	651	0.067	44	0.1	5.929	A
C-A	124			124			
A-B	0			0			
A-C	176			176			

2034 with, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		1.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	252	100.000
B		✓	62	100.000
C		✓	478	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	252
	B	0	0	62
	C	383	95	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	3
	B	0	0	3
	C	3	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.11	6.40	0.1	A
C-AB	0.26	5.88	0.6	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	656	0.071	46	0.1	5.906	A
C-AB	116	753	0.154	115	0.3	5.640	A
C-A	244			244			
A-B	0			0			
A-C	190			190			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	56	645	0.086	56	0.1	6.109	A
C-AB	153	784	0.195	152	0.4	5.708	A
C-A	277			277			
A-B	0			0			
A-C	227			227			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	630	0.108	68	0.1	6.405	A
C-AB	214	828	0.259	213	0.6	5.869	A
C-A	312			312			
A-B	0			0			
A-C	277			277			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	630	0.108	68	0.1	6.405	A
C-AB	215	828	0.259	215	0.6	5.884	A
C-A	312			312			
A-B	0			0			
A-C	277			277			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	56	645	0.086	56	0.1	6.111	A
C-AB	153	785	0.195	154	0.4	5.729	A
C-A	276			276			
A-B	0			0			
A-C	227			227			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	656	0.071	47	0.1	5.912	A
C-AB	116	753	0.155	117	0.3	5.667	A
C-A	243			243			
A-B	0			0			
A-C	190			190			

2034 with, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		5.08	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	345	100.000
B		✓	113	100.000
C		✓	291	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	345
	B	0	0	113
	C	250	41	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	100
	B	0	0	100
	C	100	41	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.49	27.27	0.9	D
C-AB	0.21	9.42	0.6	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	291	0.293	83	0.4	17.238	C
C-AB	52	465	0.112	51	0.2	8.692	A
C-A	167			167			
A-B	0			0			
A-C	260			260			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	276	0.368	101	0.6	20.458	C
C-AB	71	474	0.149	70	0.4	8.827	A
C-A	191			191			
A-B	0			0			
A-C	310			310			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	124	256	0.486	123	0.9	26.787	D
C-AB	104	489	0.213	103	0.6	9.227	A
C-A	216			216			
A-B	0			0			
A-C	380			380			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	124	256	0.486	124	0.9	27.273	D
C-AB	105	489	0.214	105	0.6	9.416	A
C-A	216			216			
A-B	0			0			
A-C	380			380			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	276	0.368	103	0.6	20.917	C
C-AB	71	474	0.150	72	0.4	9.200	A
C-A	191			191			
A-B	0			0			
A-C	310			310			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	291	0.293	86	0.4	17.622	C
C-AB	52	464	0.113	53	0.3	8.922	A
C-A	167			167			
A-B	0			0			
A-C	260			260			

2034 without, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		2.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	185	100.000
B		✓	97	100.000
C		✓	480	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	185
	B	0	0	97
	C	363	117	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	3
	B	0	0	3
	C	3	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.16	6.61	0.2	A
C-AB	0.31	6.39	0.7	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	73	670	0.109	73	0.1	6.018	A
C-AB	139	744	0.187	138	0.3	5.937	A
C-A	222			222			
A-B	0			0			
A-C	139			139			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	87	662	0.132	87	0.2	6.255	A
C-AB	182	775	0.235	182	0.5	6.082	A
C-A	249			249			
A-B	0			0			
A-C	166			166			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	107	652	0.164	107	0.2	6.605	A
C-AB	253	819	0.309	252	0.7	6.371	A
C-A	275			275			
A-B	0			0			
A-C	204			204			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	107	652	0.164	107	0.2	6.607	A
C-AB	253	819	0.309	253	0.7	6.387	A
C-A	275			275			
A-B	0			0			
A-C	204			204			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	87	662	0.132	87	0.2	6.262	A
C-AB	183	776	0.236	184	0.5	6.101	A
C-A	249			249			
A-B	0			0			
A-C	166			166			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	73	670	0.109	73	0.1	6.032	A
C-AB	140	744	0.188	140	0.3	5.969	A
C-A	221			221			
A-B	0			0			
A-C	139			139			

2034 without, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		2.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	225	100.000
B		✓	141	100.000
C		✓	293	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	225
	B	0	0	141
	C	237	56	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	0
	B	0	0	1
	C	2	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.24	7.22	0.3	A
C-AB	0.13	5.75	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	106	676	0.157	105	0.2	6.301	A
C-AB	57	684	0.083	57	0.1	5.736	A
C-A	164			164			
A-B	0			0			
A-C	169			169			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	127	667	0.190	127	0.2	6.665	A
C-AB	73	701	0.103	72	0.2	5.733	A
C-A	191			191			
A-B	0			0			
A-C	202			202			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	654	0.238	155	0.3	7.214	A
C-AB	97	724	0.133	96	0.2	5.738	A
C-A	226			226			
A-B	0			0			
A-C	248			248			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	654	0.238	155	0.3	7.222	A
C-AB	97	725	0.133	97	0.2	5.739	A
C-A	226			226			
A-B	0			0			
A-C	248			248			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	127	667	0.190	127	0.2	6.674	A
C-AB	73	701	0.104	73	0.2	5.735	A
C-A	191			191			
A-B	0			0			
A-C	202			202			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	106	676	0.157	106	0.2	6.323	A
C-AB	57	684	0.084	57	0.1	5.748	A
C-A	163			163			
A-B	0			0			
A-C	169			169			

Basic Results Summary

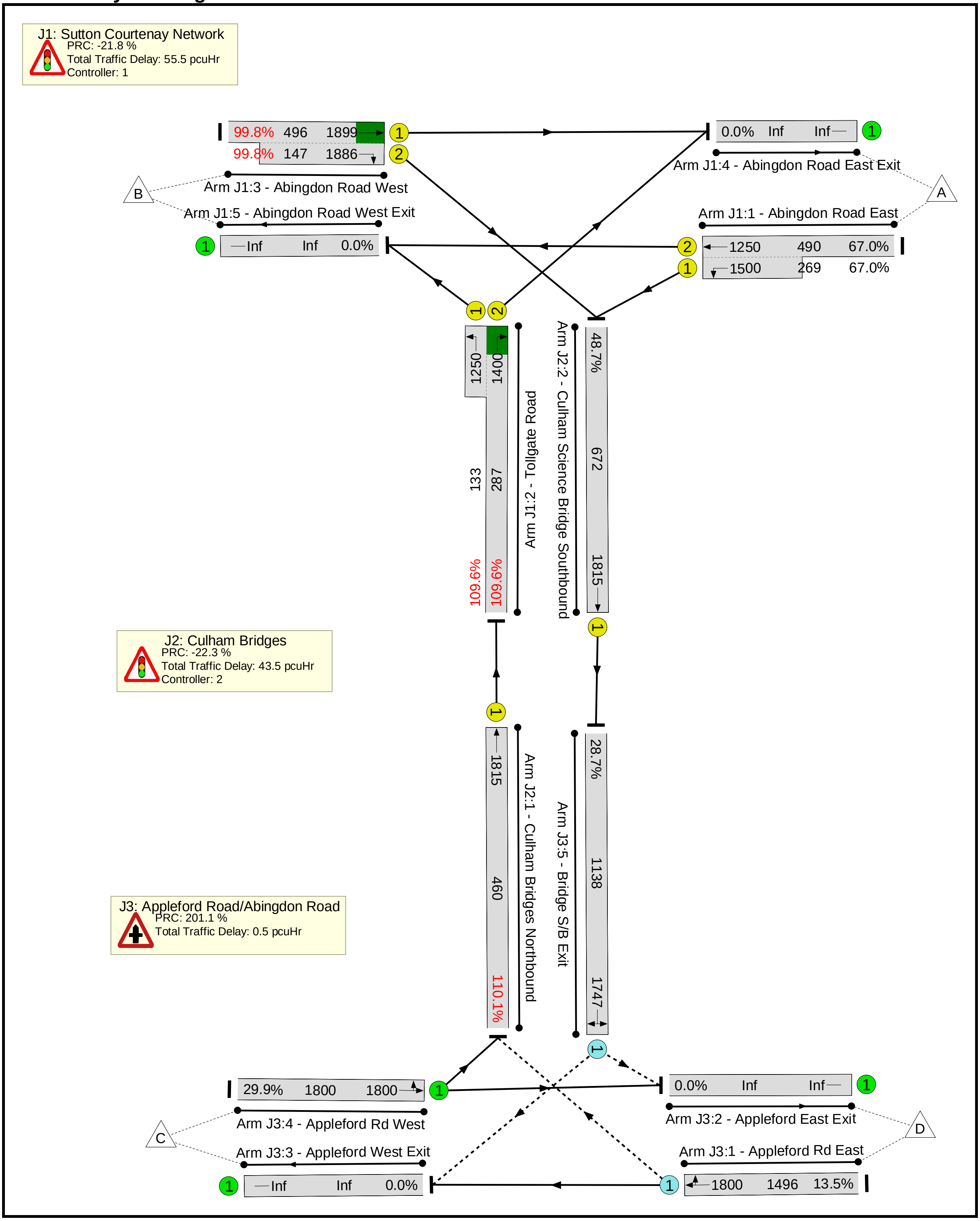
User and Project Details

Project:	**Didcot Garden Town – HIF1**
Title:	**Culham River Crossing (OFF 10 & OFF 11)**
Location:	
Additional detail:	
File name:	NetworkPrioritySptContValidation_aecom2.lsg3x
Author:	SOC
Company:	AECOM
Address:	

Basic Results Summary

Scenario 1: '2020 AM peak' (FG1: '2020 AM peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

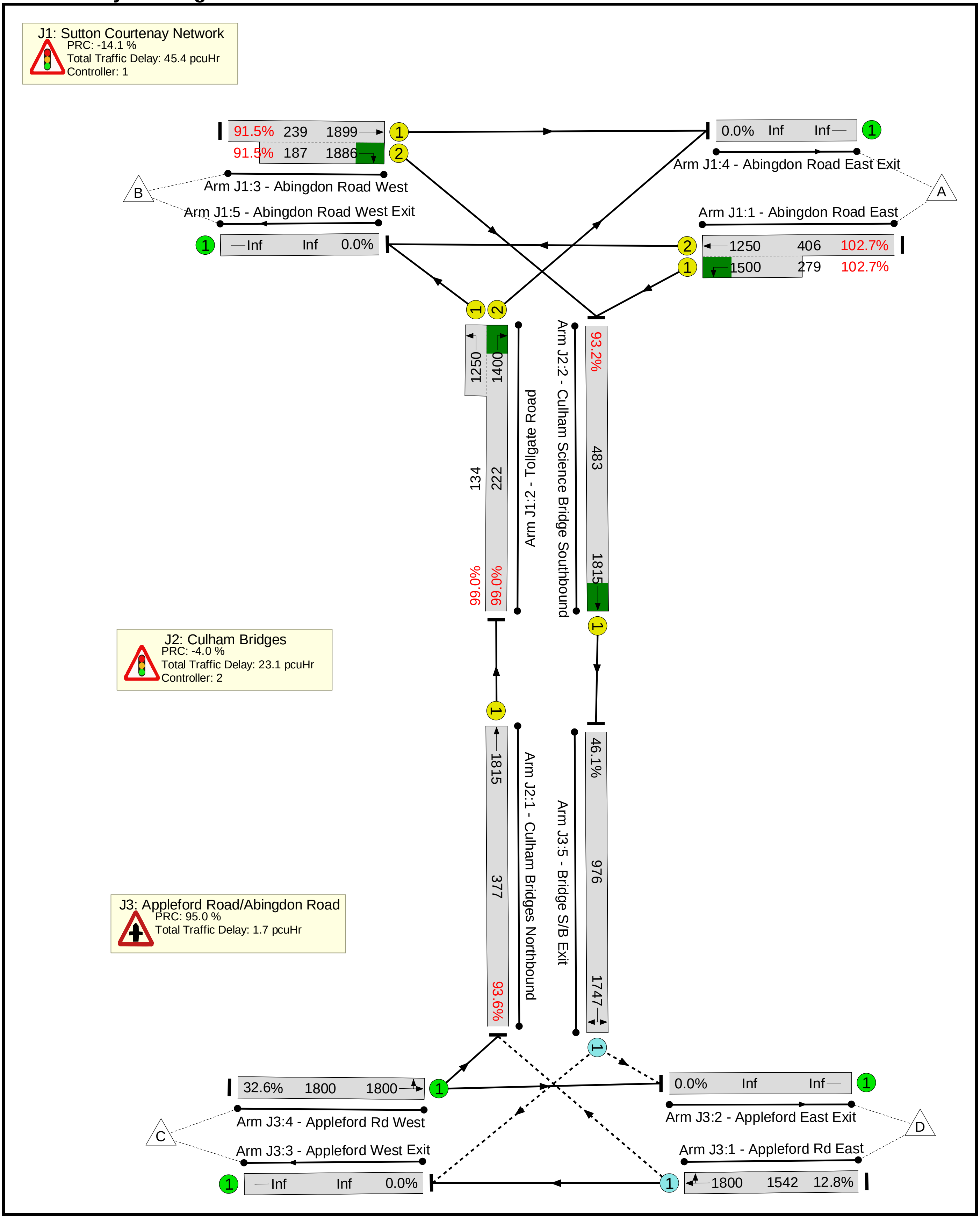
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**110.1%**	**431**	**0**	**0**	**99.5**	**-**	**-**
J1: Sutton Courtenay Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**109.6%**	**0**	**0**	**0**	**55.5**	**-**	**-**
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	53	-	508	1250:1500	490+269	67.0 : 67.0%	-	-	-	3.6	25.8	8.1
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	30	-	506	1400:1250	287+133	109.6 : 109.6%	-	-	-	31.8	249.0	38.1
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	67:8	-	642	1899:1886	496+147	99.8 : 99.8%	-	-	-	20.1	112.4	27.5
J2: Culham Bridges	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**110.1%**	**0**	**0**	**0**	**43.5**	**-**	**-**
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	506	1815	460	110.1%	-	-	-	39.6	281.9	51.4
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	327	1815	672	48.7%	-	-	-	3.9	42.5	11.2
J3: Appleford Road/Abingdon Road	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**29.9%**	**431**	**0**	**0**	**0.5**	**-**	**-**
1/1	Appleford Rd East Right Ahead	O	-		-	-	-	202	1800	1496	13.5%	104	0	0	0.1	1.4	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	538	1800	1800	29.9%	-	-	-	0.2	1.4	0.2
5/1	Bridge S/B Exit Left Right	O	-		-	-	-	327	1747	1138	28.7%	327	0	0	0.2	2.7	6.9

C1 PRC for Signalled Lanes (%): -21.8 Total Delay for Signalled Lanes (pcuHr): 55.49 Cycle Time (s): 111
C2 PRC for Signalled Lanes (%): -22.3 Total Delay for Signalled Lanes (pcuHr): 43.48 Cycle Time (s): 154
PRC Over All Lanes (%): -22.3 Total Delay Over All Lanes(pcuHr): 99.50

Basic Results Summary

Scenario 2: '2020 PM peak' (FG2: '2020 PM peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

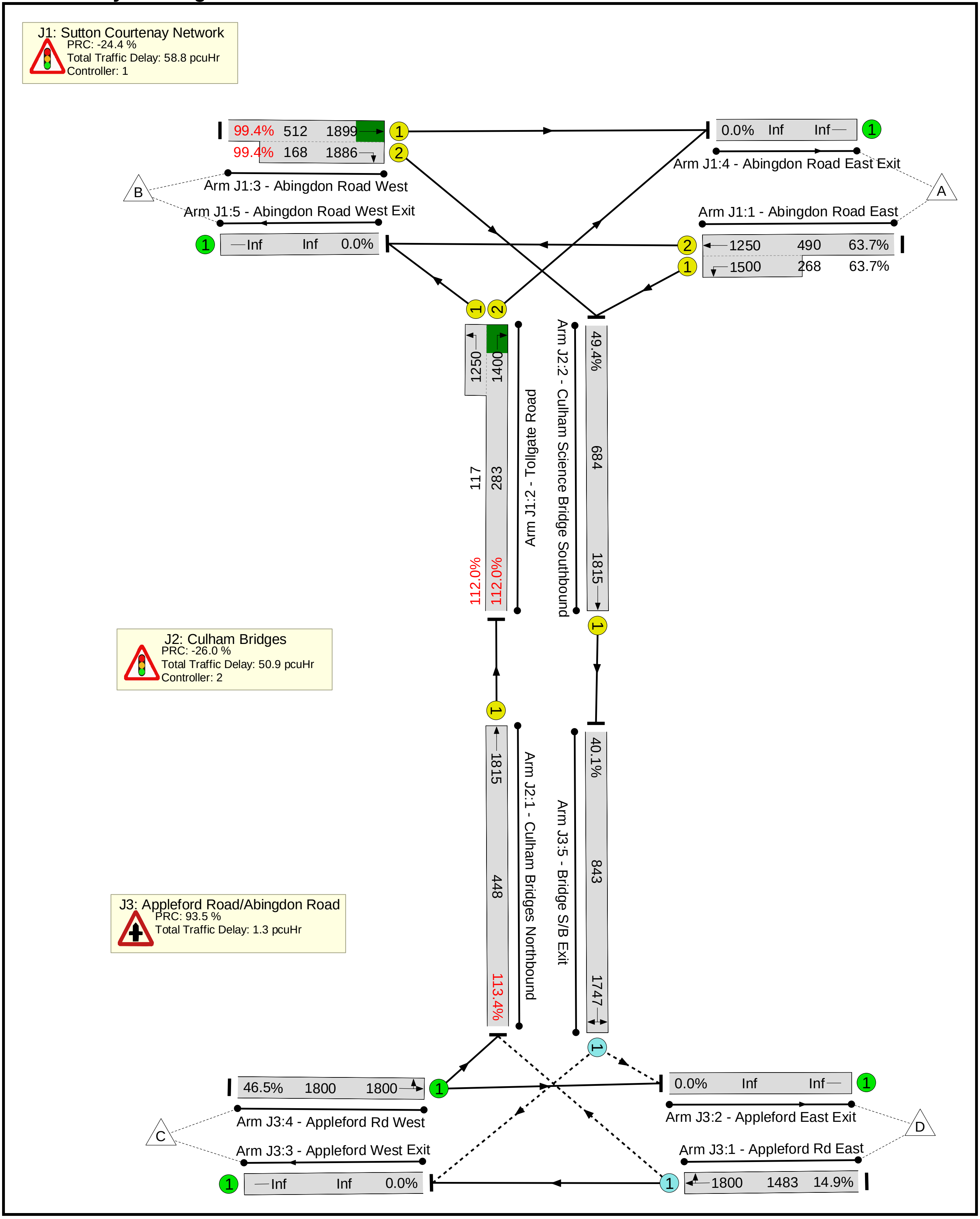
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**102.7%**	**505**	**0**	**0**	**70.3**	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	**102.7%**	**0**	**0**	**0**	**45.4**	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	44	-	704	1250:1500	406+279	102.7 : 102.7%	-	-	-	25.6	131.1	37.4
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	26	-	353	1400:1250	222+134	99.0 : 99.0%	-	-	-	12.6	128.7	16.3
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	71:21	-	390	1899:1886	239+187	91.5 : 91.5%	-	-	-	7.2	66.1	9.5
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	**93.6%**	**0**	**0**	**0**	**23.1**	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	31	-	353	1815	377	93.6%	-	-	-	11.0	112.3	19.9
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	63	-	458	1815	483	93.2%	-	-	-	12.1	96.8	24.0
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	**46.1%**	**505**	**0**	**0**	**1.7**	-	-
1/1	Appleford Rd East Right Ahead	O	-		-	-	-	198	1800	1542	12.8%	55	0	0	0.1	1.3	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	587	1800	1800	32.6%	-	-	-	0.2	1.5	0.2
5/1	Bridge S/B Exit Left Right	O	-		-	-	-	458	1747	976	46.1%	450	0	0	1.4	11.1	17.6

C1	PRC for Signalled Lanes (%):	-14.1	Total Delay for Signalled Lanes (pcuHr):	45.43	Cycle Time (s):	111
C2	PRC for Signalled Lanes (%):	-4.0	Total Delay for Signalled Lanes (pcuHr):	23.12	Cycle Time (s):	154
	PRC Over All Lanes (%):	-14.1	Total Delay Over All Lanes(pcuHr):	70.26		

Basic Results Summary

Scenario 3: '2024 No HIF AM peak' (FG3: '2024 No HIF AM peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

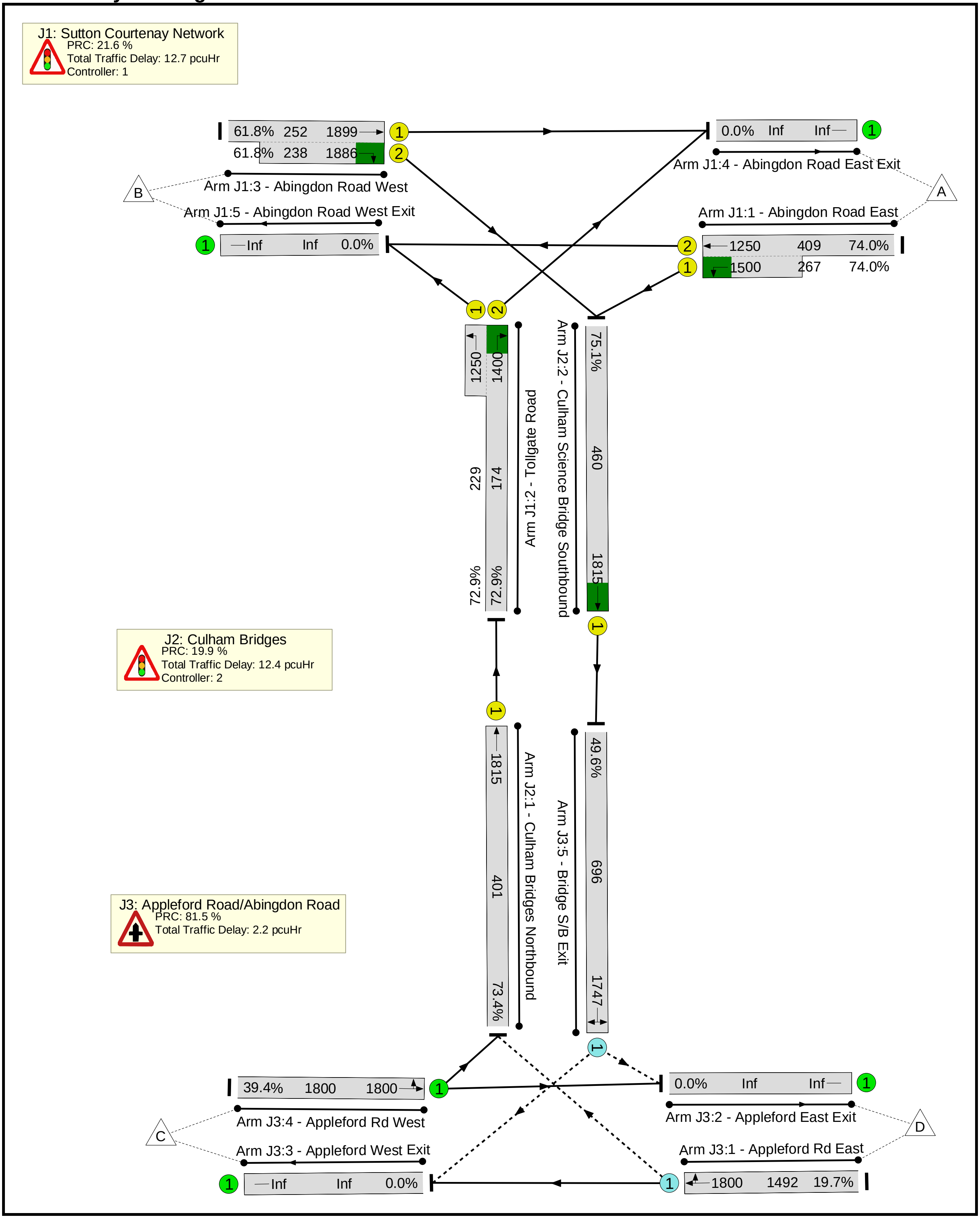
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**113.4%**	**399**	**0**	**0**	**111.0**	**-**	**-**
J1: Sutton Courtenay Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**112.0%**	**0**	**0**	**0**	**58.8**	**-**	**-**
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	53	-	483	1250:1500	490+268	63.7 : 63.7%	-	-	-	3.3	24.9	7.4
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	29	-	508	1400:1250	283+117	112.0 : 112.0%	-	-	-	35.4	284.7	41.6
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	68:9	-	676	1899:1886	512+168	99.4 : 99.4%	-	-	-	20.1	106.9	27.9
J2: Culham Bridges	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**113.4%**	**0**	**0**	**0**	**50.9**	**-**	**-**
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	37	-	508	1815	448	113.4%	-	-	-	47.0	332.8	58.1
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	57	-	338	1815	684	49.4%	-	-	-	3.9	42.0	11.5
J3: Appleford Road/Abingdon Road	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**46.5%**	**399**	**0**	**0**	**1.3**	**-**	**-**
1/1	Appleford Rd East Right Ahead	O	-		-	-	-	221	1800	1483	14.9%	61	0	0	0.1	1.4	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	837	1800	1800	46.5%	-	-	-	0.4	1.9	0.4
5/1	Bridge S/B Exit Left Right	O	-		-	-	-	338	1747	843	40.1%	338	0	0	0.7	7.9	12.3

C1 PRC for Signalled Lanes (%): -24.4 Total Delay for Signalled Lanes (pcuHr): 58.84 Cycle Time (s): 111
C2 PRC for Signalled Lanes (%): -26.0 Total Delay for Signalled Lanes (pcuHr): 50.90 Cycle Time (s): 154
PRC Over All Lanes (%): -26.0 Total Delay Over All Lanes(pcuHr): 111.01

Basic Results Summary

Scenario 4: '2024 No HIF PM peak' (FG4: '2024 No HIF PM peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

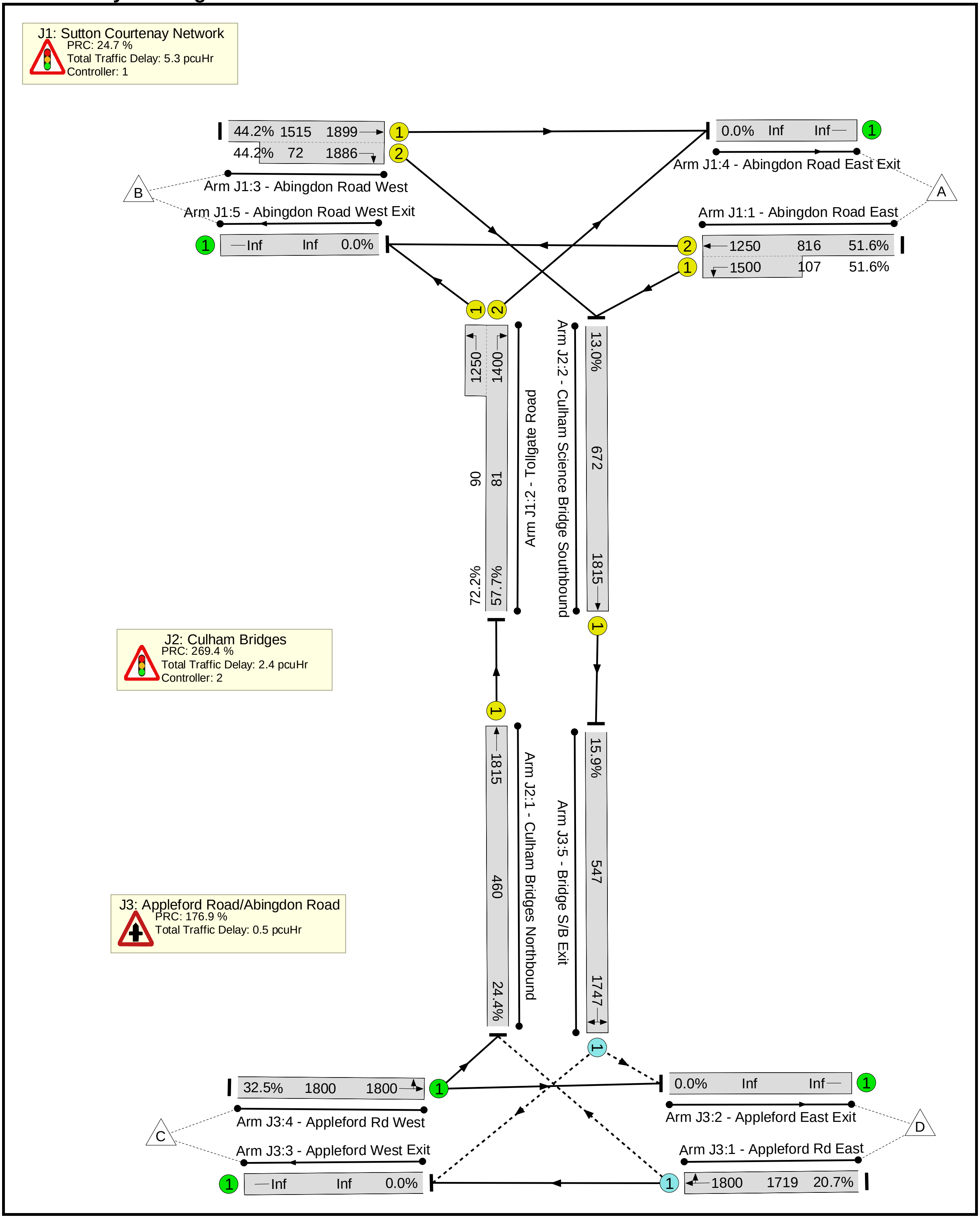
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.1%**	**408**	**0**	**0**	**27.4**	**-**	**-**
J1: Sutton Courtenay Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.0%**	**0**	**0**	**0**	**12.7**	**-**	**-**
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	44	-	501	1250:1500	409+267	74.0 : 74.0%	-	-	-	5.1	37.0	9.0
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	23	-	294	1400:1250	174+229	72.9 : 72.9%	-	-	-	4.6	56.9	5.9
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	74:24	-	303	1899:1886	252+238	61.8 : 61.8%	-	-	-	3.0	35.1	5.1
J2: Culham Bridges	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.1%**	**0**	**0**	**0**	**12.4**	**-**	**-**
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	33	-	294	1815	401	73.4%	-	-	-	5.9	72.2	13.0
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	61	-	345	1815	460	75.1%	-	-	-	6.5	68.3	15.0
J3: Appleford Road/Abingdon Road	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**49.6%**	**408**	**0**	**0**	**2.2**	**-**	**-**
1/1	Appleford Rd East Right Ahead	O	-		-	-	-	294	1800	1492	19.7%	63	0	0	0.1	1.5	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	710	1800	1800	39.4%	-	-	-	0.3	1.7	0.3
5/1	Bridge S/B Exit Left Right	O	-		-	-	-	345	1747	696	49.6%	345	0	0	1.7	18.0	14.4

C1	PRC for Signalled Lanes (%):	21.6	Total Delay for Signalled Lanes (pcuHr):	12.75	Cycle Time (s):	111
C2	PRC for Signalled Lanes (%):	19.9	Total Delay for Signalled Lanes (pcuHr):	12.45	Cycle Time (s):	154
	PRC Over All Lanes (%):	19.9	Total Delay Over All Lanes(pcuHr):	27.37		

Basic Results Summary

Scenario 5: '2024 With HIF AM peak' (FG5: '2024 With HIF AM peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

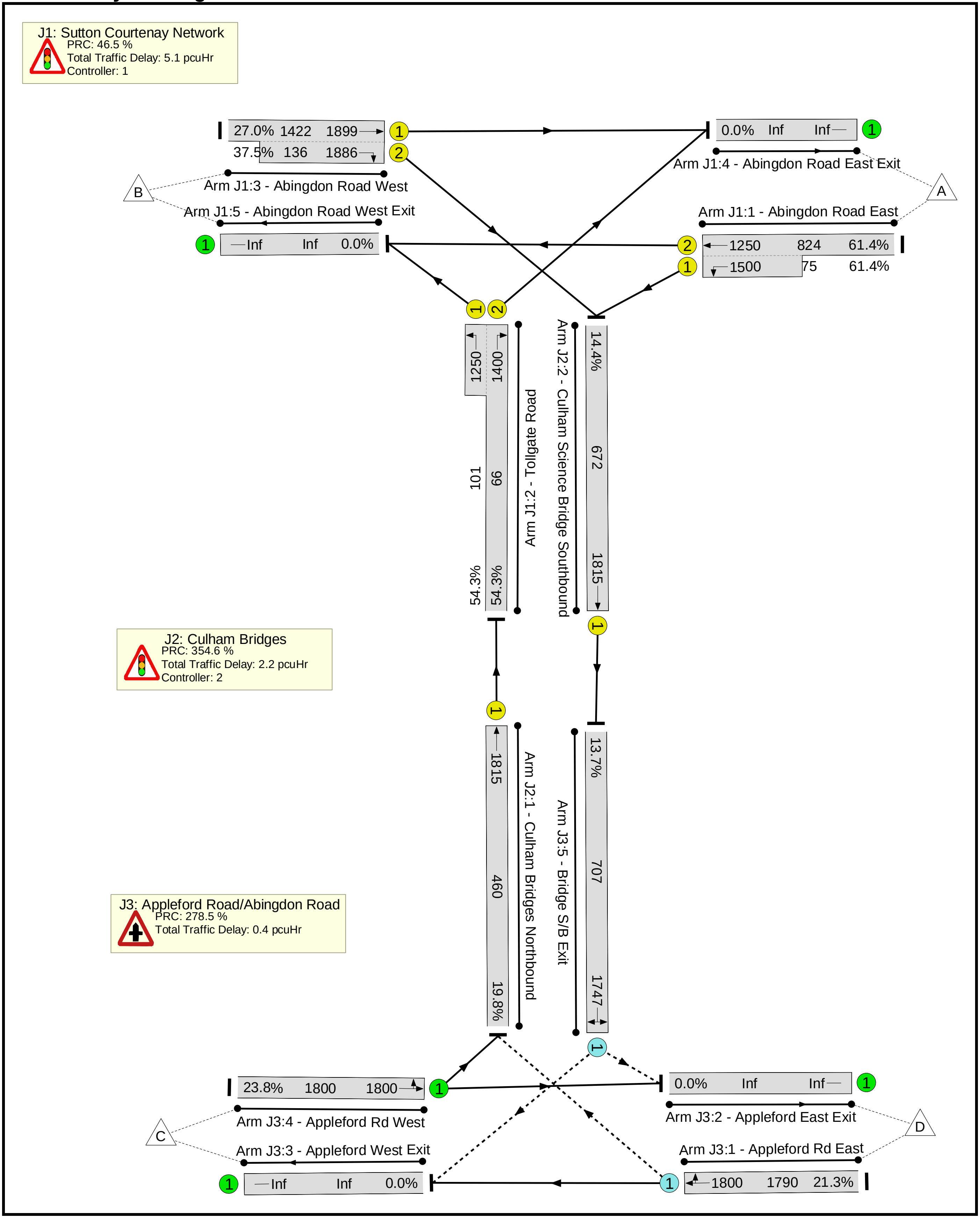
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**72.2%**	**104**	**0**	**0**	**8.2**	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	**72.2%**	**0**	**0**	**0**	**5.3**	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	77	-	476	1250:1500	816+107	51.6 : 51.6%	-	-	-	1.5	11.2	6.3
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	7	-	112	1400:1250	81+90	57.7 : 72.2%	-	-	-	2.5	79.3	2.9
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	90:7	-	702	1899:1886	1515+72	44.2 : 44.2%	-	-	-	1.3	6.9	6.0
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	**24.4%**	**0**	**0**	**0**	**2.4**	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	112	1815	460	24.4%	-	-	-	1.6	50.9	4.0
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	87	1815	672	13.0%	-	-	-	0.8	35.2	2.5
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	**32.5%**	**104**	**0**	**0**	**0.5**	-	-
1/1	Appleford Rd East Right Ahead	O	-		-	-	-	355	1800	1719	20.7%	17	0	0	0.1	1.3	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	585	1800	1800	32.5%	-	-	-	0.2	1.5	0.2
5/1	Bridge S/B Exit Left Right	O	-		-	-	-	87	1747	547	15.9%	87	0	0	0.1	3.9	0.2

C1 PRC for Signalled Lanes (%): 24.7 Total Delay for Signalled Lanes (pcuHr): 5.29 Cycle Time (s): 111
C2 PRC for Signalled Lanes (%): 269.4 Total Delay for Signalled Lanes (pcuHr): 2.43 Cycle Time (s): 154
PRC Over All Lanes (%): 24.7 Total Delay Over All Lanes(pcuHr): 8.19

Basic Results Summary

Scenario 6: '2024 With HIF PM peak' (FG6: '2024 With HIF PM peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

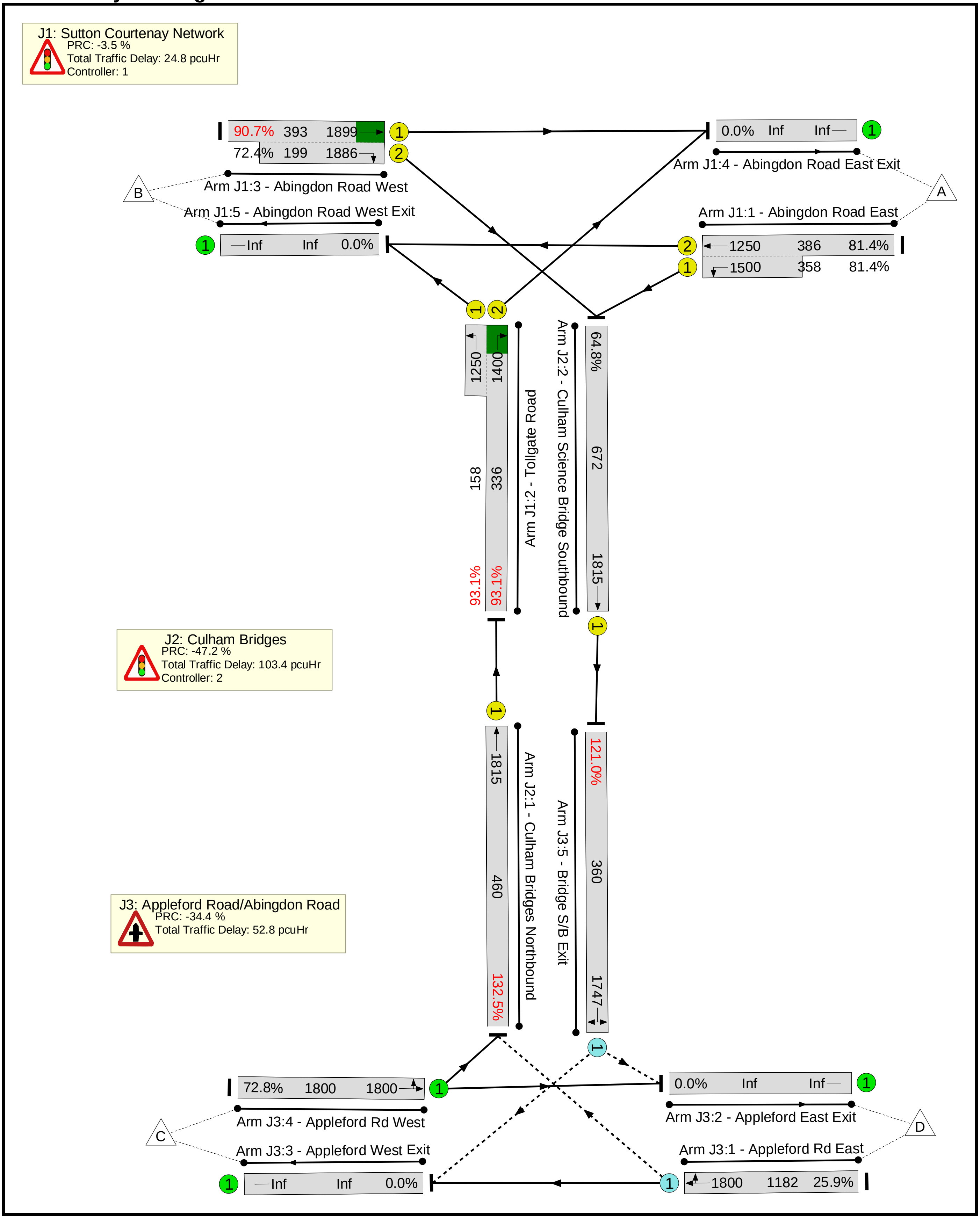
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**61.4%**	**100**	**0**	**0**	**7.7**	**-**	**-**
J1: Sutton Courtenay Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**61.4%**	**0**	**0**	**0**	**5.1**	**-**	**-**
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	76	-	552	1250:1500	824+75	61.4 : 61.4%	-	-	-	2.1	13.7	9.0
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	8	-	91	1400:1250	66+101	54.3 : 54.3%	-	-	-	1.8	71.8	2.2
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	89:7	-	435	1899:1886	1422+136	27.0 : 37.5%	-	-	-	1.2	9.6	3.0
J2: Culham Bridges	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**19.8%**	**0**	**0**	**0**	**2.2**	**-**	**-**
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	91	1815	460	19.8%	-	-	-	1.3	50.1	3.2
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	97	1815	672	14.4%	-	-	-	1.0	35.4	2.8
J3: Appleford Road/Abingdon Road	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**23.8%**	**100**	**0**	**0**	**0.4**	**-**	**-**
1/1	Appleford Rd East Right Ahead	O	-		-	-	-	381	1800	1790	21.3%	3	0	0	0.1	1.3	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	428	1800	1800	23.8%	-	-	-	0.2	1.3	0.2
5/1	Bridge S/B Exit Left Right	O	-		-	-	-	97	1747	707	13.7%	97	0	0	0.1	3.0	0.1

C1 PRC for Signalled Lanes (%): 46.5 Total Delay for Signalled Lanes (pcuHr): 5.06 Cycle Time (s): 111
C2 PRC for Signalled Lanes (%): 354.6 Total Delay for Signalled Lanes (pcuHr): 2.22 Cycle Time (s): 154
PRC Over All Lanes (%): 46.5 Total Delay Over All Lanes(pcuHr): 7.66

Basic Results Summary

Scenario 7: '2034 No HIF AM peak' (FG7: '2034 No HIF AM peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

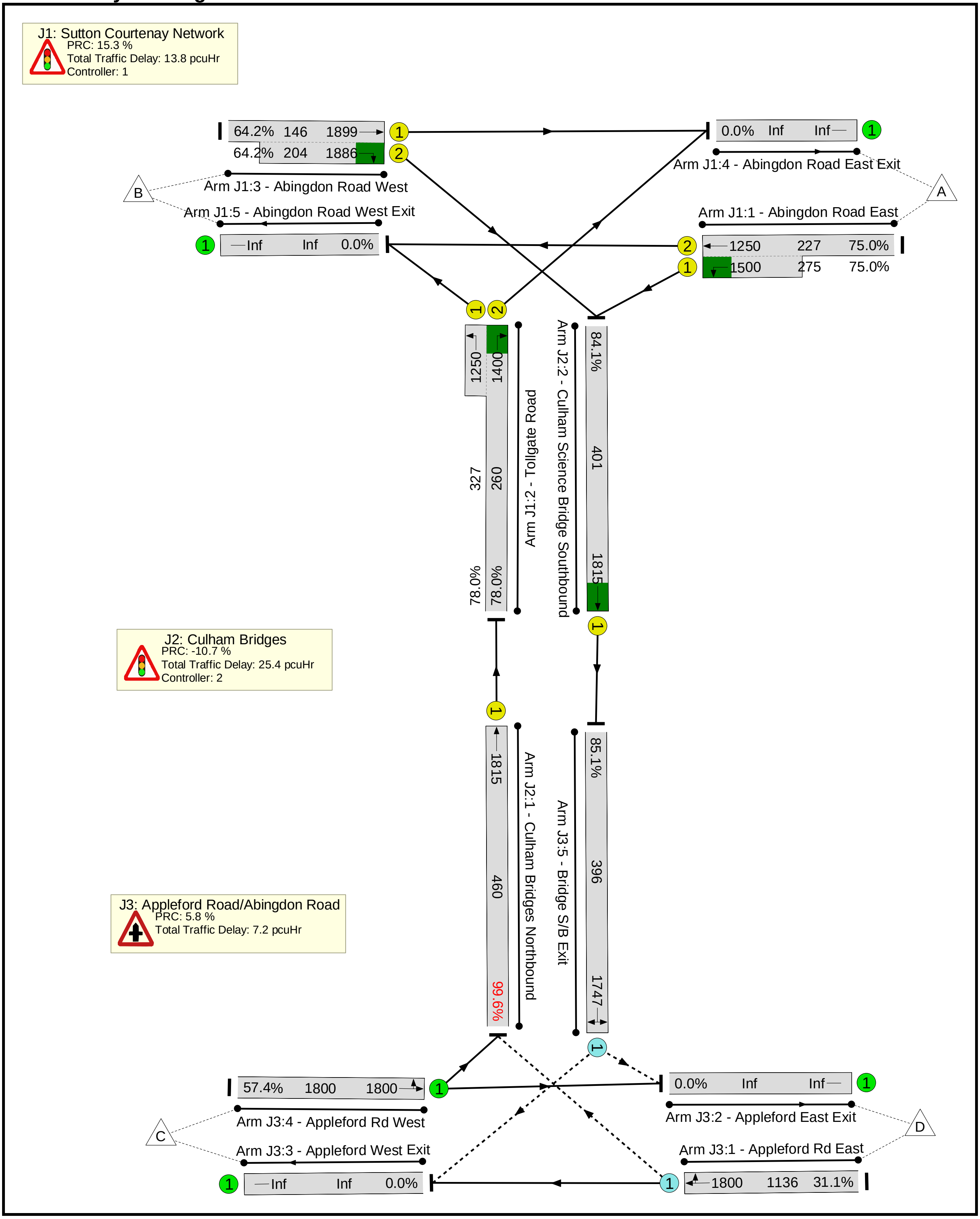
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**132.5%**	**438**	**0**	**0**	**180.9**	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	**93.1%**	**0**	**0**	**0**	**24.8**	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	44	-	605	1250:1500	386+358	81.4 : 81.4%	-	-	-	6.4	38.0	10.8
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	36	-	609	1400:1250	336+158	93.1 : 93.1%	-	-	-	9.6	75.2	16.4
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	61:11	-	501	1899:1886	393+199	90.7 : 72.4%	-	-	-	8.8	63.0	13.3
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	**132.5%**	**0**	**0**	**0**	**103.4**	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	609	1815	460	132.5%	-	-	-	97.6	576.9	109.1
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	435	1815	672	64.8%	-	-	-	5.8	47.7	16.3
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	**121.0%**	**438**	**0**	**0**	**52.8**	-	-
1/1	Appleford Rd East Right Ahead	O	-		-	-	-	306	1800	1182	25.9%	78	0	0	0.2	2.1	0.2
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	1310	1800	1800	72.8%	-	-	-	1.3	3.7	1.3
5/1	Bridge S/B Exit Left Right	O	-		-	-	-	435	1747	360	121.0%	360	0	0	51.3	424.4	86.8

C1 PRC for Signalled Lanes (%): -3.5 Total Delay for Signalled Lanes (pcuHr): 24.76 Cycle Time (s): 111
C2 PRC for Signalled Lanes (%): -47.2 Total Delay for Signalled Lanes (pcuHr): 103.36 Cycle Time (s): 154
PRC Over All Lanes (%): -47.2 Total Delay Over All Lanes(pcuHr): 180.90

Basic Results Summary

Scenario 8: '2034 No HIF PM peak' (FG8: '2034 No HIF PM peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

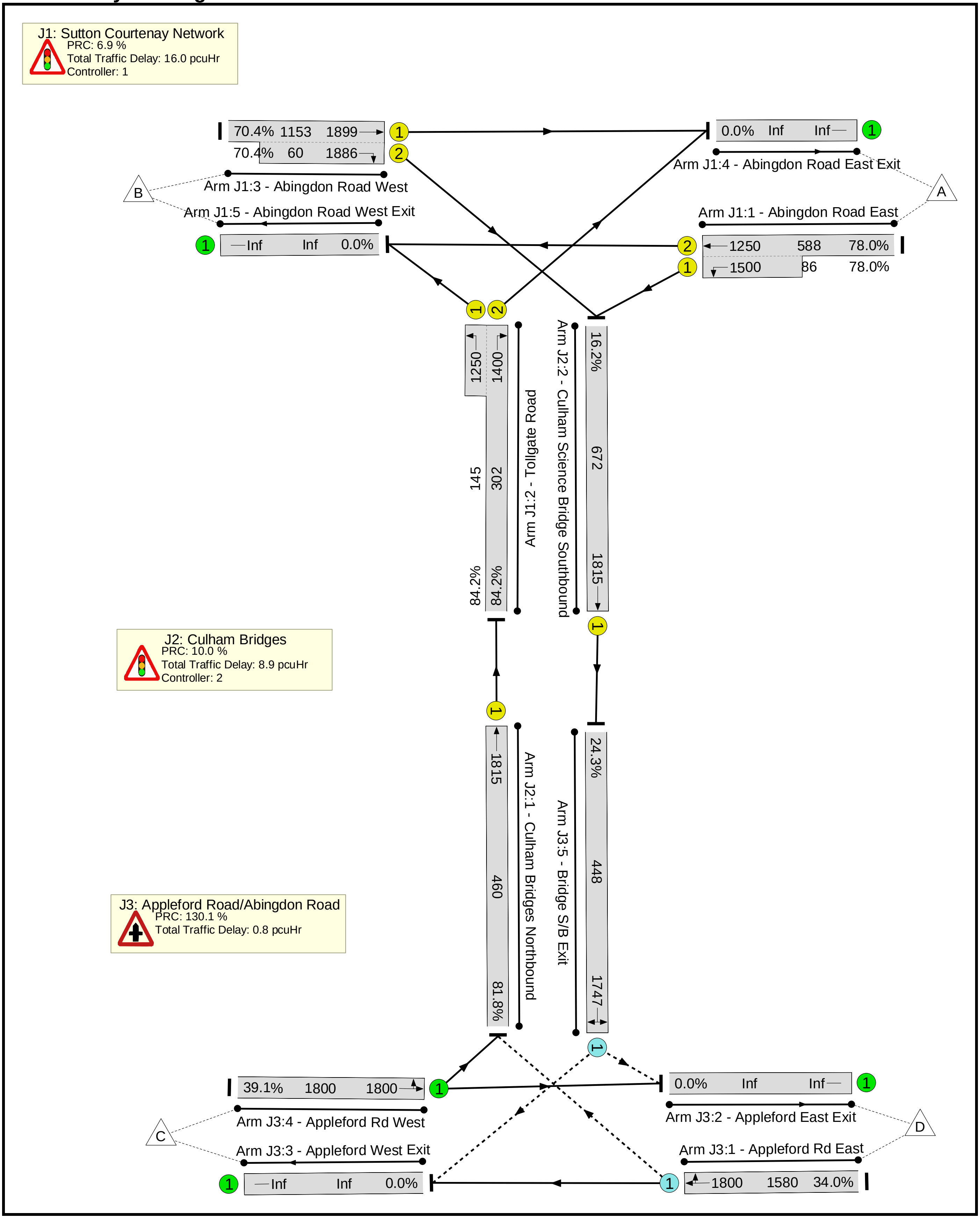
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**99.6%**	**461**	**0**	**0**	**46.5**	**-**	**-**
J1: Sutton Courtenay Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.0%**	**0**	**0**	**0**	**13.8**	**-**	**-**
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	31	-	376	1250:1500	227+275	75.0 : 75.0%	-	-	-	5.3	50.4	7.2
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	38	-	458	1400:1250	260+327	78.0 : 78.0%	-	-	-	5.6	44.3	9.7
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	59:22	-	225	1899:1886	146+204	64.2 : 64.2%	-	-	-	2.9	47.0	4.7
J2: Culham Bridges	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**99.6%**	**0**	**0**	**0**	**25.4**	**-**	**-**
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	458	1815	460	99.6%	-	-	-	17.6	138.4	29.8
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	337	1815	401	84.1%	-	-	-	7.8	83.6	16.2
J3: Appleford Road/Abingdon Road	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.1%**	**461**	**0**	**0**	**7.2**	**-**	**-**
1/1	Appleford Rd East Right Ahead	O	-		-	-	-	353	1800	1136	31.1%	124	0	0	0.2	2.3	0.2
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	1034	1800	1800	57.4%	-	-	-	0.7	2.3	0.7
5/1	Bridge S/B Exit Left Right	O	-		-	-	-	337	1747	396	85.1%	337	0	0	6.3	67.2	16.8

C1 PRC for Signalled Lanes (%): 15.3 Total Delay for Signalled Lanes (pcuHr): 13.84 Cycle Time (s): 111
C2 PRC for Signalled Lanes (%): -10.7 Total Delay for Signalled Lanes (pcuHr): 25.43 Cycle Time (s): 154
PRC Over All Lanes (%): -10.7 Total Delay Over All Lanes(pcuHr): 46.46

Basic Results Summary

Scenario 9: '2034 With HIF AM peak' (FG9: '2034 With HIF AM peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

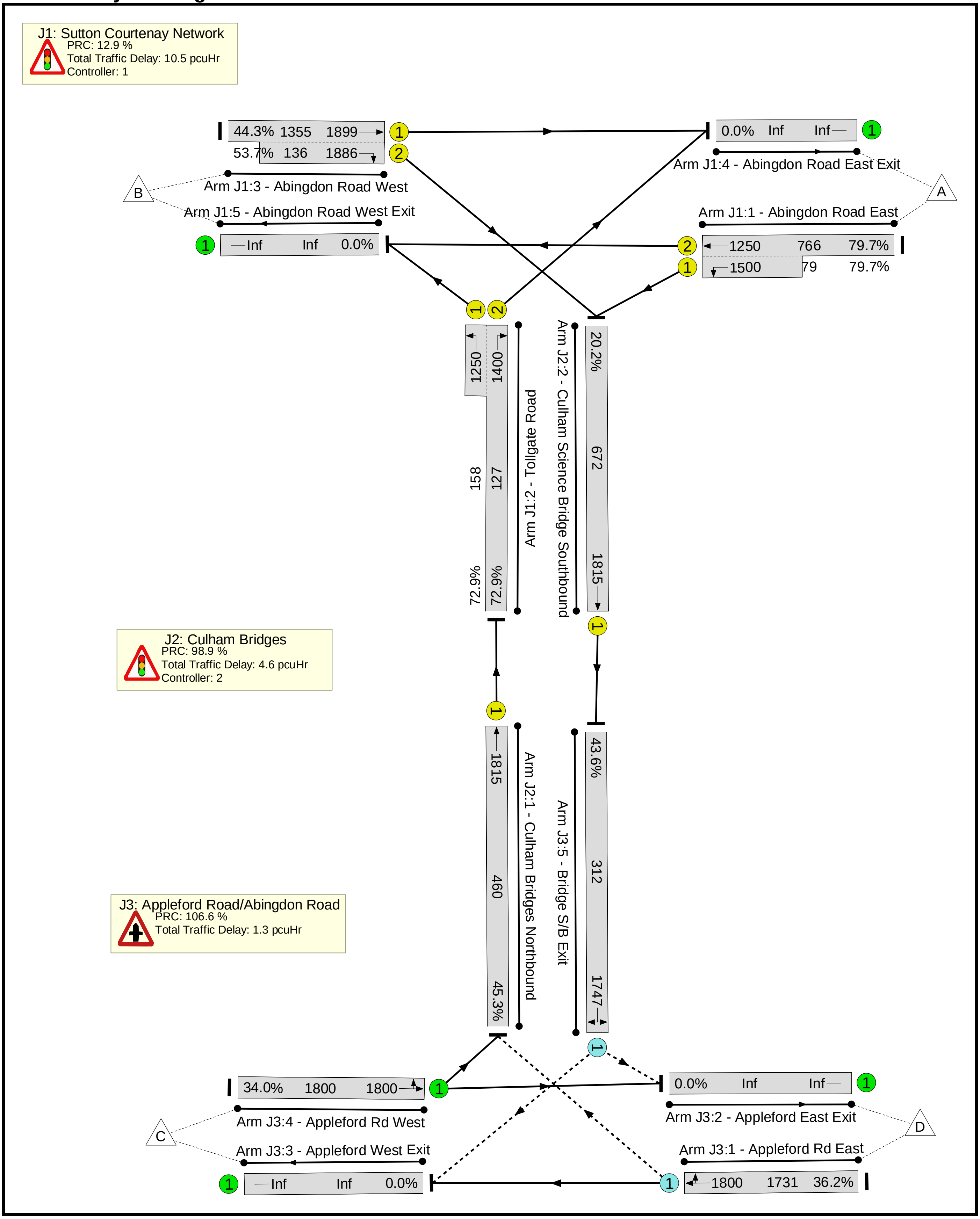
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**84.2%**	**199**	**0**	**0**	**25.6**	**-**	**-**
J1: Sutton Courtenay Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**84.2%**	**0**	**0**	**0**	**16.0**	**-**	**-**
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	55	-	526	1250:1500	588+86	78.0 : 78.0%	-	-	-	4.8	33.0	13.7
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	29	-	376	1400:1250	302+145	84.2 : 84.2%	-	-	-	6.3	59.8	10.7
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	68:7	-	854	1899:1886	1153+60	70.4 : 70.4%	-	-	-	4.9	20.6	17.6
J2: Culham Bridges	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.8%**	**0**	**0**	**0**	**8.9**	**-**	**-**
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	376	1815	460	81.8%	-	-	-	7.8	74.6	17.3
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	109	1815	672	16.2%	-	-	-	1.1	35.7	3.2
J3: Appleford Road/Abingdon Road	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**39.1%**	**199**	**0**	**0**	**0.8**	**-**	**-**
1/1	Appleford Rd East Right Ahead	O	-		-	-	-	538	1800	1580	34.0%	90	0	0	0.3	1.7	0.3
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	704	1800	1800	39.1%	-	-	-	0.3	1.6	0.3
5/1	Bridge S/B Exit Left Right	O	-		-	-	-	109	1747	448	24.3%	109	0	0	0.2	6.0	2.5

C1 PRC for Signalled Lanes (%): 6.9 Total Delay for Signalled Lanes (pcuHr): 15.96 Cycle Time (s): 111
C2 PRC for Signalled Lanes (%): 10.0 Total Delay for Signalled Lanes (pcuHr): 8.88 Cycle Time (s): 154
PRC Over All Lanes (%): 6.9 Total Delay Over All Lanes(pcuHr): 25.59

Basic Results Summary

Scenario 10: '2034 With HIF PM peak' (FG10: '2034 With HIF PM peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**79.7%**	**165**	**0**	**0**	**16.4**	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	**79.7%**	**0**	**0**	**0**	**10.5**	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	71	-	674	1250:1500	766+79	79.7 : 79.7%	-	-	-	4.4	23.6	16.0
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	13	-	208	1400:1250	127+158	72.9 : 72.9%	-	-	-	4.0	68.7	4.7
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	84:7	-	673	1899:1886	1355+136	44.3 : 53.7%	-	-	-	2.2	11.6	6.7
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	**45.3%**	**0**	**0**	**0**	**4.6**	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	208	1815	460	45.3%	-	-	-	3.2	55.6	7.9
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	136	1815	672	20.2%	-	-	-	1.4	36.4	4.1
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	**43.6%**	**165**	**0**	**0**	**1.3**	-	-
1/1	Appleford Rd East Right Ahead	O	-		-	-	-	626	1800	1731	36.2%	29	0	0	0.3	1.6	0.3
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	612	1800	1800	34.0%	-	-	-	0.3	1.5	0.3
5/1	Bridge S/B Exit Left Right	O	-		-	-	-	136	1747	312	43.6%	136	0	0	0.7	19.2	5.8

C1	PRC for Signalled Lanes (%):	12.9	Total Delay for Signalled Lanes (pcuHr):	10.54	Cycle Time (s):	111
C2	PRC for Signalled Lanes (%):	98.9	Total Delay for Signalled Lanes (pcuHr):	4.59	Cycle Time (s):	154
	PRC Over All Lanes (%):	12.9	Total Delay Over All Lanes(pcuHr):	16.39		

Junctions 9

ARCADY 9 - Roundabout Module

Filename: OFF 12 Junction-A4130_Lady Grove_Roundabout.j9
Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF12 - Junction 32-A4130_Lady Grove
Report generation date: 02/07/2021 09:06:04

Summary of junction performance

	AM					PM				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
	2024 with									
Arm 1	D3	0.1	2.86	0.12	A	D4	0.3	3.28	0.25	A
Arm 2		1.1	4.96	0.53	A		0.8	4.29	0.43	A
Arm 3		1.0	6.08	0.50	A		0.8	5.04	0.45	A
	2024 without									
Arm 1	D5	0.4	3.11	0.27	A	D6	1.0	4.52	0.50	A
Arm 2		1.1	5.24	0.53	A		0.7	4.60	0.41	A
Arm 3		0.5	4.54	0.34	A		0.5	3.92	0.32	A
	2034 with									
Arm 1	D7	0.2	3.13	0.17	A	D8	0.8	4.82	0.46	A
Arm 2		2.5	8.34	0.72	A		1.5	6.25	0.60	A
Arm 3		1.9	9.89	0.66	A		1.5	7.64	0.61	A
	2034 without									
Arm 1	D9	0.9	4.01	0.46	A	D10	1.6	5.51	0.62	A
Arm 2		1.4	6.28	0.58	A		0.7	4.83	0.41	A
Arm 3		0.2	3.61	0.19	A		0.2	3.12	0.17	A

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

File summary

File Description

Title	
Location	
Site number	
Date	19/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2024 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	5.15	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Lady Grove	
2	Abington Road	
3	A4130	

Roundabout Geometry

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1	4.41	7.30	18.5	20.0	50.0	46.0	
2	3.50	7.30	17.8	20.0	50.0	46.0	
3	3.50	7.30	20.6	20.0	50.0	52.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.614	1813
2	0.583	1648
3	0.577	1648

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	163	100.000
2		✓	731	100.000
3		✓	536	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	60	103
	2	566	45	120
	3	92	444	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	0	3
	2	4	1	0
	3	2	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.12	2.86	0.1	A
2	0.53	4.96	1.1	A
3	0.50	6.08	1.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	367	1547	0.079	122	0.1	2.527	A
2	550	77	1552	0.355	548	0.5	3.578	A
3	404	458	1305	0.309	402	0.4	3.978	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	147	439	1500	0.098	146	0.1	2.658	A
2	657	93	1543	0.426	656	0.7	4.055	A
3	482	549	1253	0.385	481	0.6	4.659	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	179	537	1438	0.125	179	0.1	2.859	A
2	805	113	1531	0.526	803	1.1	4.936	A
3	590	672	1183	0.499	589	1.0	6.040	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	179	538	1437	0.125	179	0.1	2.861	A
2	805	113	1531	0.526	805	1.1	4.956	A
3	590	673	1183	0.499	590	1.0	6.075	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	147	441	1499	0.098	147	0.1	2.663	A
2	657	93	1543	0.426	659	0.7	4.077	A
3	482	550	1252	0.385	483	0.6	4.690	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	369	1545	0.079	123	0.1	2.530	A
2	550	78	1552	0.355	551	0.6	3.601	A
3	404	461	1303	0.310	404	0.5	4.009	A

2024 with, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	4.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	334	100.000
2		✓	575	100.000
3		✓	539	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	141	193
	2	440	39	96
	3	86	453	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	0	1
	2	4	5	0
	3	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.25	3.28	0.3	A
2	0.43	4.29	0.8	A
3	0.45	5.04	0.8	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	251	369	1573	0.160	251	0.2	2.721	A
2	433	145	1511	0.287	431	0.4	3.330	A
3	406	359	1407	0.288	404	0.4	3.585	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	300	442	1527	0.197	300	0.2	2.933	A
2	517	173	1495	0.346	516	0.5	3.677	A
3	485	430	1365	0.355	484	0.5	4.084	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	368	541	1466	0.251	367	0.3	3.278	A
2	633	212	1473	0.430	632	0.7	4.279	A
3	593	527	1308	0.454	592	0.8	5.024	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	368	542	1465	0.251	368	0.3	3.280	A
2	633	212	1472	0.430	633	0.8	4.288	A
3	593	527	1307	0.454	593	0.8	5.041	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	300	443	1526	0.197	301	0.2	2.939	A
2	517	174	1495	0.346	518	0.5	3.688	A
3	485	431	1364	0.355	486	0.6	4.102	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	251	371	1571	0.160	252	0.2	2.729	A
2	433	145	1511	0.287	433	0.4	3.342	A
3	406	361	1406	0.289	406	0.4	3.607	A

2024 without, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	4.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	383	100.000
2		✓	709	100.000
3		✓	370	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	151	232
	2	568	37	104
	3	119	251	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	2	2
	2	2	0	2
	3	2	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.27	3.11	0.4	A
2	0.53	5.24	1.1	A
3	0.34	4.54	0.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	288	216	1641	0.176	287	0.2	2.658	A
2	534	174	1515	0.352	532	0.5	3.652	A
3	279	454	1319	0.211	277	0.3	3.452	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	259	1614	0.213	344	0.3	2.834	A
2	637	208	1495	0.426	637	0.7	4.189	A
3	333	543	1269	0.262	332	0.4	3.842	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	422	317	1577	0.267	421	0.4	3.114	A
2	781	255	1468	0.532	779	1.1	5.213	A
3	407	665	1201	0.339	407	0.5	4.529	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	422	317	1577	0.267	422	0.4	3.115	A
2	781	255	1468	0.532	781	1.1	5.237	A
3	407	666	1200	0.339	407	0.5	4.540	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	259	1614	0.213	345	0.3	2.839	A
2	637	209	1495	0.426	639	0.7	4.211	A
3	333	545	1268	0.262	333	0.4	3.853	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	288	217	1640	0.176	289	0.2	2.663	A
2	534	175	1515	0.352	535	0.5	3.677	A
3	279	456	1318	0.211	279	0.3	3.467	A

2024 without, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	4.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	711	100.000
2		✓	491	100.000
3		✓	395	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	292	419
	2	366	39	86
	3	110	284	1

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	0	1
	2	4	5	3
	3	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.50	4.52	1.0	A
2	0.41	4.60	0.7	A
3	0.32	3.92	0.5	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	535	243	1651	0.324	533	0.5	3.215	A
2	370	315	1407	0.263	368	0.4	3.460	A
3	297	304	1437	0.207	296	0.3	3.152	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	639	291	1621	0.394	638	0.6	3.662	A
2	441	377	1372	0.322	441	0.5	3.865	A
3	355	364	1402	0.253	355	0.3	3.438	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	783	356	1580	0.495	782	1.0	4.500	A
2	541	462	1324	0.408	540	0.7	4.584	A
3	435	445	1354	0.321	434	0.5	3.914	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	783	357	1580	0.495	783	1.0	4.516	A
2	541	462	1324	0.408	541	0.7	4.596	A
3	435	446	1353	0.321	435	0.5	3.919	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	639	292	1621	0.394	640	0.7	3.677	A
2	441	378	1371	0.322	442	0.5	3.879	A
3	355	365	1401	0.253	356	0.3	3.444	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	535	244	1650	0.324	536	0.5	3.234	A
2	370	317	1406	0.263	370	0.4	3.477	A
3	297	305	1436	0.207	298	0.3	3.164	A

2034 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	8.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	212	100.000
2		✓	1012	100.000
3		✓	645	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	**2**	**3**
From	**1**	0	104	108
	2	704	107	201
	3	152	493	0

Vehicle Mix

HV %s

		To		
		1	**2**	**3**
From	**1**	0	0	1
	2	3	0	0
	3	2	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.17	3.13	0.2	A
2	0.72	8.34	2.5	A
3	0.66	9.89	1.9	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	160	449	1518	0.105	159	0.1	2.648	A
2	762	81	1567	0.486	758	0.9	4.430	A
3	486	608	1236	0.393	483	0.6	4.768	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	191	538	1462	0.130	190	0.1	2.831	A
2	910	97	1558	0.584	908	1.4	5.522	A
3	580	728	1167	0.497	579	1.0	6.100	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	233	657	1386	0.168	233	0.2	3.122	A
2	1114	119	1545	0.721	1110	2.5	8.179	A
3	710	889	1076	0.660	707	1.9	9.657	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	233	660	1384	0.169	233	0.2	3.127	A
2	1114	119	1545	0.721	1114	2.5	8.338	A
3	710	893	1074	0.661	710	1.9	9.889	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	191	543	1459	0.131	191	0.2	2.838	A
2	910	97	1558	0.584	914	1.4	5.633	A
3	580	733	1165	0.498	584	1.0	6.235	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	160	453	1516	0.105	160	0.1	2.653	A
2	762	81	1567	0.486	764	1.0	4.493	A
3	486	612	1233	0.394	487	0.7	4.836	A

2034 with, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	6.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	578	100.000
2		✓	783	100.000
3		✓	662	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	307	271
	2	555	99	129
	3	147	515	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	0	1
	2	3	2	0
	3	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.46	4.82	0.8	A
2	0.60	6.25	1.5	A
3	0.61	7.64	1.5	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	435	460	1518	0.287	434	0.4	3.315	A
2	589	203	1492	0.395	587	0.6	3.964	A
3	498	490	1334	0.374	496	0.6	4.286	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	520	551	1461	0.356	519	0.5	3.818	A
2	704	243	1469	0.479	703	0.9	4.689	A
3	595	587	1277	0.466	594	0.9	5.261	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	636	674	1385	0.460	635	0.8	4.793	A
2	862	298	1438	0.599	860	1.5	6.206	A
3	729	718	1201	0.607	726	1.5	7.544	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	636	676	1384	0.460	636	0.8	4.817	A
2	862	298	1438	0.600	862	1.5	6.252	A
3	729	720	1200	0.608	729	1.5	7.642	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	520	554	1459	0.356	521	0.6	3.841	A
2	704	244	1469	0.479	706	0.9	4.734	A
3	595	590	1276	0.467	598	0.9	5.330	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	435	463	1516	0.287	436	0.4	3.335	A
2	589	204	1492	0.395	591	0.7	3.998	A
3	498	493	1332	0.374	500	0.6	4.330	A

2034 without, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	4.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	698	100.000
2		✓	713	100.000
3		✓	216	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	**2**	**3**
From	**1**	0	304	394
	2	492	38	183
	3	83	133	0

Vehicle Mix

HV %s

		To		
		1	**2**	**3**
From	**1**	0	1	2
	2	3	0	1
	3	3	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.46	4.01	0.9	A
2	0.58	6.28	1.4	A
3	0.19	3.61	0.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	525	128	1704	0.308	524	0.4	3.047	A
2	537	296	1438	0.373	534	0.6	3.972	A
3	163	397	1339	0.121	162	0.1	3.055	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	627	154	1688	0.372	627	0.6	3.392	A
2	641	354	1405	0.456	640	0.8	4.703	A
3	194	476	1295	0.150	194	0.2	3.268	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	769	188	1666	0.461	767	0.8	4.002	A
2	785	433	1358	0.578	783	1.3	6.232	A
3	238	582	1236	0.192	238	0.2	3.607	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	769	188	1665	0.461	769	0.9	4.013	A
2	785	434	1358	0.578	785	1.4	6.280	A
3	238	584	1235	0.193	238	0.2	3.610	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	627	154	1687	0.372	629	0.6	3.402	A
2	641	355	1404	0.457	643	0.8	4.744	A
3	194	478	1294	0.150	194	0.2	3.273	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	525	129	1703	0.309	526	0.4	3.058	A
2	537	297	1438	0.373	538	0.6	4.004	A
3	163	400	1338	0.122	163	0.1	3.065	A

2034 without, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	4.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	953	100.000
2		✓	479	100.000
3		✓	218	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	431	522
	2	325	21	133
	3	92	126	0

Vehicle Mix

HV %s

		To		
		1	2	3
From	1	0	0	1
	2	3	7	2
	3	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.62	5.51	1.6	A
2	0.41	4.83	0.7	A
3	0.17	3.12	0.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	717	110	1734	0.414	715	0.7	3.522	A
2	361	391	1377	0.262	359	0.4	3.531	A
3	164	259	1464	0.112	164	0.1	2.768	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	857	132	1721	0.498	856	1.0	4.156	A
2	431	469	1333	0.323	430	0.5	3.985	A
3	196	311	1434	0.137	196	0.2	2.906	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1049	162	1702	0.616	1047	1.6	5.474	A
2	527	573	1273	0.414	526	0.7	4.815	A
3	240	380	1394	0.172	240	0.2	3.119	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1049	162	1702	0.616	1049	1.6	5.514	A
2	527	575	1272	0.414	527	0.7	4.831	A
3	240	381	1393	0.172	240	0.2	3.120	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	857	132	1721	0.498	859	1.0	4.191	A
2	431	471	1332	0.323	432	0.5	4.002	A
3	196	312	1434	0.137	196	0.2	2.908	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	717	111	1734	0.414	719	0.7	3.551	A
2	361	394	1376	0.262	361	0.4	3.547	A
3	164	261	1464	0.112	164	0.1	2.770	A

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: OFF 13 Junction-Lady Grove_Sires Hill.j9
Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF13 - Junction 33-Lady Grove_Sires Hill
Report generation date: 02/07/2021 09:06:47

Summary of junction performance

	AM					PM				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
	2020									
Stream B-C	D1	4.3	164.20	0.94	F	D2	0.1	10.05	0.10	B
Stream B-A		9.6	92.50	0.95	F		0.9	20.13	0.47	C
Stream C-AB		0.3	6.09	0.17	A		1.2	10.24	0.48	B
	2024 with									
Stream B-C	D3	0.0	7.87	0.00	A	D4	0.0	7.45	0.00	A
Stream B-A		1.0	14.27	0.50	B		0.6	13.02	0.39	B
Stream C-AB		0.0	5.03	0.00	A		0.1	6.19	0.10	A
	2024 without									
Stream B-C	D5	0.2	20.48	0.16	C	D6	0.1	9.99	0.05	A
Stream B-A		3.3	41.49	0.79	E		0.7	21.08	0.43	C
Stream C-AB		0.5	5.41	0.23	A		1.2	7.53	0.40	A
	2034 with									
Stream B-C	D7	0.1	18.11	0.11	C	D8	0.0	10.34	0.01	B
Stream B-A		3.6	35.74	0.80	E		1.5	27.16	0.61	D
Stream C-AB		0.0	4.87	0.01	A		1.6	13.00	0.58	B
	2034 without									
Stream B-C	D9	6.2	732.70	1.37	F	D10	2.6	402.73	1.06	F
Stream B-A		49.1	545.05	1.35	F		12.5	230.98	1.07	F
Stream C-AB		3.7	8.92	0.64	A		12.5	35.52	0.88	E

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

File summary

File Description

Title	
Location	
Site number	
Date	03/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		48.04	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Sires Hill (W)		Major
B	Lady Grove		Minor
C	Sires Hill (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	6.98			247.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	5.98	4.16	3.39	3.27	✓	1.00	28	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	549	0.096	0.242	0.152	0.346
B-C	640	0.094	0.237	-	-
C-B	717	0.266	0.266	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	312	100.000
B		✓	447	100.000
C		✓	249	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	231	81
	B	361	0	86
	C	165	84	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	1	2
	B	0	0	7
	C	1	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.94	164.20	4.3	F
B-A	0.95	92.50	9.6	F
C-AB	0.17	6.09	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	65	403	0.161	64	0.2	10.591	B
B-A	272	470	0.578	267	1.3	17.249	C
C-AB	77	703	0.109	76	0.1	5.737	A
C-A	111			111			
A-B	174			174			
A-C	61			61			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	77	308	0.251	77	0.3	15.556	C
B-A	325	451	0.719	320	2.3	26.640	D
C-AB	96	708	0.135	95	0.2	5.877	A
C-A	128			128			
A-B	208			208			
A-C	73			73			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	95	126	0.752	87	2.2	82.378	F
B-A	397	421	0.945	377	7.4	63.890	F
C-AB	124	716	0.173	124	0.3	6.088	A
C-A	150			150			
A-B	254			254			
A-C	89			89			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	95	101	0.938	86	4.3	164.198	F
B-A	397	417	0.953	388	9.6	92.504	F
C-AB	124	716	0.173	124	0.3	6.089	A
C-A	150			150			
A-B	254			254			
A-C	89			89			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	77	252	0.307	93	0.5	24.691	C
B-A	325	444	0.730	351	3.0	45.300	E
C-AB	96	709	0.135	96	0.2	5.877	A
C-A	128			128			
A-B	208			208			
A-C	73			73			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	65	388	0.167	66	0.2	11.200	B
B-A	272	470	0.579	278	1.4	19.376	C
C-AB	77	704	0.109	77	0.2	5.747	A
C-A	111			111			
A-B	174			174			
A-C	61			61			

2020, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		4.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	704	100.000
B		✓	180	100.000
C		✓	415	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	558	146
	B	144	0	36
	C	225	190	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	1	0
	B	0	0	8
	C	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.10	10.05	0.1	B
B-A	0.47	20.13	0.9	C
C-AB	0.48	10.24	1.2	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	27	488	0.056	27	0.1	7.799	A
B-A	108	406	0.267	107	0.4	12.003	B
C-AB	190	685	0.277	188	0.5	7.228	A
C-A	122			122			
A-B	420			420			
A-C	110			110			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	32	457	0.071	32	0.1	8.481	A
B-A	129	377	0.343	129	0.5	14.475	B
C-AB	243	684	0.356	242	0.7	8.165	A
C-A	130			130			
A-B	502			502			
A-C	131			131			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	40	400	0.099	40	0.1	9.986	A
B-A	159	338	0.470	157	0.9	19.798	C
C-AB	330	683	0.482	328	1.2	10.135	B
C-A	127			127			
A-B	614			614			
A-C	161			161			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	40	398	0.100	40	0.1	10.047	B
B-A	159	337	0.470	158	0.9	20.132	C
C-AB	330	684	0.483	330	1.2	10.243	B
C-A	127			127			
A-B	614			614			
A-C	161			161			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	32	455	0.071	32	0.1	8.529	A
B-A	129	376	0.344	131	0.5	14.750	B
C-AB	244	685	0.356	246	0.7	8.264	A
C-A	129			129			
A-B	502			502			
A-C	131			131			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	27	487	0.056	27	0.1	7.838	A
B-A	108	405	0.268	109	0.4	12.205	B
C-AB	191	686	0.278	192	0.5	7.308	A
C-A	122			122			
A-B	420			420			
A-C	110			110			

2024 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		6.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	198	100.000
B		✓	228	100.000
C		✓	85	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	137	61
	B	226	0	2
	C	84	1	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	2	0
	B	1	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.00	7.87	0.0	A
B-A	0.50	14.27	1.0	B
C-AB	0.00	5.03	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	542	0.003	1	0.0	6.664	A
B-A	170	515	0.330	168	0.5	10.326	B
C-AB	0.83	716	0.001	0.82	0.0	5.031	A
C-A	63			63			
A-B	103			103			
A-C	46			46			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	512	0.004	2	0.0	7.061	A
B-A	203	509	0.399	203	0.7	11.710	B
C-AB	1	716	0.001	1	0.0	5.031	A
C-A	75			75			
A-B	123			123			
A-C	55			55			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	461	0.005	2	0.0	7.846	A
B-A	249	501	0.497	248	1.0	14.139	B
C-AB	1	717	0.002	1	0.0	5.030	A
C-A	92			92			
A-B	151			151			
A-C	67			67			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	460	0.005	2	0.0	7.869	A
B-A	249	501	0.497	249	1.0	14.267	B
C-AB	1	717	0.002	1	0.0	5.030	A
C-A	92			92			
A-B	151			151			
A-C	67			67			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	510	0.004	2	0.0	7.083	A
B-A	203	509	0.399	204	0.7	11.855	B
C-AB	1	716	0.001	1	0.0	5.033	A
C-A	75			75			
A-B	123			123			
A-C	55			55			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	540	0.003	2	0.0	6.689	A
B-A	170	515	0.330	171	0.5	10.474	B
C-AB	0.83	716	0.001	0.83	0.0	5.031	A
C-A	63			63			
A-B	103			103			
A-C	46			46			

2024 with, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		3.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	412	100.000
B		✓	161	100.000
C		✓	127	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	297	115
	B	159	0	2
	C	73	54	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	1	0
	B	1	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.00	7.45	0.0	A
B-A	0.39	13.02	0.6	B
C-AB	0.10	6.19	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	546	0.003	1	0.0	6.607	A
B-A	120	482	0.249	118	0.3	9.879	A
C-AB	44	670	0.066	44	0.1	5.752	A
C-A	51			51			
A-B	224			224			
A-C	87			87			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	523	0.003	2	0.0	6.905	A
B-A	143	469	0.305	143	0.4	11.017	B
C-AB	54	661	0.082	54	0.1	5.930	A
C-A	60			60			
A-B	267			267			
A-C	103			103			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	486	0.005	2	0.0	7.445	A
B-A	175	451	0.388	174	0.6	12.952	B
C-AB	68	649	0.105	68	0.1	6.191	A
C-A	72			72			
A-B	327			327			
A-C	127			127			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	485	0.005	2	0.0	7.455	A
B-A	175	451	0.388	175	0.6	13.024	B
C-AB	68	649	0.105	68	0.1	6.192	A
C-A	72			72			
A-B	327			327			
A-C	127			127			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	522	0.003	2	0.0	6.918	A
B-A	143	469	0.305	144	0.4	11.099	B
C-AB	54	661	0.082	54	0.1	5.936	A
C-A	60			60			
A-B	267			267			
A-C	103			103			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	545	0.003	2	0.0	6.621	A
B-A	120	481	0.249	120	0.3	9.980	A
C-AB	44	670	0.066	44	0.1	5.761	A
C-A	51			51			
A-B	224			224			
A-C	87			87			

2024 without, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		11.21	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	382	100.000
B		✓	310	100.000
C		✓	467	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	278	104
	B	279	0	31
	C	376	91	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	1	1
	B	0	0	8
	C	1	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.16	20.48	0.2	C
B-A	0.79	41.49	3.3	E
C-AB	0.23	5.41	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	23	435	0.054	23	0.1	8.741	A
B-A	210	443	0.474	207	0.9	15.016	C
C-AB	106	801	0.132	105	0.2	5.174	A
C-A	246			246			
A-B	209			209			
A-C	78			78			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	28	365	0.076	28	0.1	10.686	B
B-A	251	421	0.595	249	1.4	20.601	C
C-AB	139	825	0.169	139	0.3	5.255	A
C-A	281			281			
A-B	250			250			
A-C	93			93			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	34	224	0.152	34	0.2	18.847	C
B-A	307	391	0.786	300	3.1	37.147	E
C-AB	194	860	0.225	193	0.5	5.409	A
C-A	320			320			
A-B	306			306			
A-C	115			115			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	34	210	0.163	34	0.2	20.477	C
B-A	307	391	0.786	306	3.3	41.487	E
C-AB	194	861	0.226	194	0.5	5.413	A
C-A	320			320			
A-B	306			306			
A-C	115			115			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	28	350	0.080	28	0.1	11.192	B
B-A	251	421	0.596	258	1.6	22.947	C
C-AB	139	826	0.169	140	0.3	5.255	A
C-A	280			280			
A-B	250			250			
A-C	93			93			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	23	428	0.054	23	0.1	8.895	A
B-A	210	443	0.475	213	0.9	15.810	C
C-AB	106	801	0.133	107	0.2	5.189	A
C-A	245			245			
A-B	209			209			
A-C	78			78			

2024 without, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		3.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	853	100.000
B		✓	136	100.000
C		✓	544	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	621	232
	B	118	0	18
	C	417	127	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	0
	B	1	0	9
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.05	9.99	0.1	A
B-A	0.43	21.08	0.7	C
C-AB	0.40	7.53	1.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	467	0.029	13	0.0	7.930	A
B-A	89	379	0.234	88	0.3	12.303	B
C-AB	162	765	0.212	161	0.4	5.953	A
C-A	247			247			
A-B	468			468			
A-C	175			175			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	16	437	0.037	16	0.0	8.561	A
B-A	106	346	0.306	106	0.4	14.930	B
C-AB	220	782	0.282	220	0.6	6.417	A
C-A	269			269			
A-B	558			558			
A-C	209			209			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	20	382	0.052	20	0.1	9.943	A
B-A	130	301	0.432	129	0.7	20.754	C
C-AB	326	808	0.404	324	1.2	7.466	A
C-A	273			273			
A-B	684			684			
A-C	255			255			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	20	380	0.052	20	0.1	9.988	A
B-A	130	300	0.432	130	0.7	21.078	C
C-AB	327	809	0.404	327	1.2	7.528	A
C-A	272			272			
A-B	684			684			
A-C	255			255			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	16	435	0.037	16	0.0	8.595	A
B-A	106	345	0.307	107	0.5	15.186	C
C-AB	222	783	0.283	224	0.7	6.482	A
C-A	267			267			
A-B	558			558			
A-C	209			209			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	466	0.029	14	0.0	7.955	A
B-A	89	378	0.235	89	0.3	12.482	B
C-AB	163	766	0.213	164	0.4	6.003	A
C-A	246			246			
A-B	468			468			
A-C	175			175			

2034 with, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		16.98	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	230	100.000
B		✓	370	100.000
C		✓	159	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	145	85
	B	347	0	23
	C	154	5	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	1	0
	B	1	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.11	18.11	0.1	C
B-A	0.80	35.74	3.6	E
C-AB	0.01	4.87	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	17	458	0.038	17	0.0	8.172	A
B-A	261	501	0.521	257	1.1	14.513	B
C-AB	4	743	0.006	4	0.0	4.871	A
C-A	115			115			
A-B	109			109			
A-C	64			64			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	21	379	0.055	21	0.1	10.032	B
B-A	312	492	0.634	310	1.6	19.449	C
C-AB	6	749	0.007	6	0.0	4.840	A
C-A	137			137			
A-B	130			130			
A-C	76			76			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	25	238	0.106	25	0.1	16.899	C
B-A	382	480	0.797	375	3.4	32.428	D
C-AB	7	758	0.009	7	0.0	4.796	A
C-A	168			168			
A-B	160			160			
A-C	94			94			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	25	224	0.113	25	0.1	18.111	C
B-A	382	480	0.797	381	3.6	35.737	E
C-AB	7	758	0.009	7	0.0	4.796	A
C-A	168			168			
A-B	160			160			
A-C	94			94			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	21	364	0.057	21	0.1	10.487	B
B-A	312	492	0.634	319	1.8	21.551	C
C-AB	6	749	0.007	6	0.0	4.840	A
C-A	137			137			
A-B	130			130			
A-C	76			76			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	17	449	0.039	17	0.0	8.332	A
B-A	261	501	0.521	264	1.1	15.362	C
C-AB	4	743	0.006	4	0.0	4.871	A
C-A	115			115			
A-B	109			109			
A-C	64			64			

2034 with, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		7.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	610	100.000
B		✓	192	100.000
C		✓	412	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	506	104
	B	190	0	2
	C	157	255	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	0	0
	B	1	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.01	10.34	0.0	B
B-A	0.61	27.16	1.5	D
C-AB	0.58	13.00	1.6	B
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	505	0.003	1	0.0	7.143	A
B-A	143	407	0.351	141	0.5	13.421	B
C-AB	233	674	0.345	230	0.6	8.084	A
C-A	77			77			
A-B	381			381			
A-C	78			78			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	456	0.004	2	0.0	7.918	A
B-A	171	379	0.450	170	0.8	17.082	C
C-AB	291	668	0.436	290	0.9	9.526	A
C-A	79			79			
A-B	455			455			
A-C	93			93			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	357	0.006	2	0.0	10.158	B
B-A	209	342	0.612	206	1.5	26.085	D
C-AB	382	660	0.578	379	1.6	12.756	B
C-A	72			72			
A-B	557			557			
A-C	115			115			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	350	0.006	2	0.0	10.337	B
B-A	209	341	0.614	209	1.5	27.160	D
C-AB	382	661	0.579	382	1.6	13.001	B
C-A	71			71			
A-B	557			557			
A-C	115			115			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	451	0.004	2	0.0	8.012	A
B-A	171	378	0.452	174	0.9	17.806	C
C-AB	292	669	0.437	295	0.9	9.725	A
C-A	78			78			
A-B	455			455			
A-C	93			93			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	502	0.003	2	0.0	7.191	A
B-A	143	406	0.352	144	0.6	13.815	B
C-AB	233	675	0.346	235	0.6	8.218	A
C-A	77			77			
A-B	381			381			
A-C	78			78			

2034 without, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		99.09	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
A		✓	690	100.000
B		✓	339	100.000
C		✓	961	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	523	167
	B	306	0	33
	C	819	142	0

Vehicle Mix

HV %s

		To		
		A	B	C
From	A	0	1	0
	B	1	0	5
	C	0	3	0