12 TRAFFIC AND TRANSPORTATION

12.1 INTRODUCTION

12.1.1 GENERAL

This Chapter of the Environmental Impact Assessment Report (EIAR) provides an assessment of the traffic and transportation impacts of the proposed quarrying operations at Shillelagh Quarries Ltd. Hempstown Quarry (the 'Site'). This is in support of a Section 37L application for continued blasting, crushing, stockpiling and extraction of material at the existing quarry located in the townlands of Hempstown Commons, Rathmore, Co. Kildare. This chapter will also review a proposed realigned haul route that will be constructed as part of these works to ensure that all vehicular traffic will safely access/egress the site within lands owned by the Applicant.

The following assessment was prepared by Kevin Harley (BEng, CEng MIEI) who has 20 years' experience in traffic assessment.

12.1.2 TECHNICAL SCOPE

The technical scope of this assessment is to consider the potential impacts and effects that activities at the Site (as detailed in Chapter 2, Project Description) will have on the traffic and transport infrastructure (the existing road network) during the lifetime of the proposed development under consideration as part of this application (see temporal scope below.)

This chapter will determine the flows generated by the quarrying operations and assess whether any increases are within recognised thresholds. It will also analyse the impact of generated traffic on individual junctions: namely the intersections of both site access/L6030 and N81/L6030 across the lifetime of the proposed development abs comment on their operational capacities and any adverse impacts.

This chapter will also detail the nature of construction required to complete the realigned haul route, which will inform subsequent chapters on assessment of suitable environmental criteria.

12.1.3 GEOGRAPHICAL AND TEMPORAL SCOPE

The geographical extent of this study for the assessment covers the area within the EIA boundary (Site) the connected existing road network utilised by the Development's activities.

The Client is seeking planning for a 12-year quarrying operation followed by 2 years restoration. The trips generated by the quarrying will generate trips and therefore will inform the temporal scope of this assessment, whereas the restoration phase proposes to use material that has been stockpiled on-site. On these bases, and given that it is envisaged that processing and approval of this application will take up to one year, the baseline conditions are set as 2025 with the quarrying operation defining the 'assessment period' as 2025-2037.

12.1.4 PROJECT DESCRIPTION SUMMARY

A full description of the proposed development is provided in Chapter 2 (Project Description) of this EIAR. A high-level summary of the proposed development is provided below.

The proposed development for further extraction of rock is to be within the existing void area with lateral extension of the void proposed in a north-easterly direction. The estimated total quantity of

aggregate resource to be extracted in the life-of-quarry is c. 1,757,500 tonnes. A proposed 12 year life-of-quarry requirement is based on an average production rate of ca. 2,929 tonnes per week for rock. Dry processing of mechanically broken and blast rock onsite will comprise crushing and screening to produce aggregate materials for market.

SQL proposed to relocate the existing office container, wheel wash and water recycling tank, weighbridge to fully within the Application Site to provide space for realignment of the private access lane on SQL lands and to develop dedicated carparking facilities for the quarry operation on SQL owned lands.

The proposed car parking facilities will provide parking for HGVs and private vehicles, including guest parking.

SQL propose to decommission the existing abstraction borehole located off the access road to facilitate the road realignment on their own lands. SQL propose to undertake periodic extraction of groundwater from an abstraction borehole located on Stresslite Precast Ltd to provide water for SQL's closed-loop system wheelwash recycling tank and the mobile bowser.

There will be no direct discharge to surface or groundwater from the quarry operations. Collected waters from the base of the quarry void will continue to be pumped to the primary soakaway (which is connected to an overflow soakaway). It is proposed that the collect waters will pass through a bypass separator prior to discharge to the primary soakaway. It is proposed to extend the existing sump on the quarry floor to provide additional temporary holding capacity for collected waters, if required.

Following end-of-quarry life, a 2 year restoration period is proposed. This is detailed in a Restoration and Habitats Management Plan provided in appendix 2B of Chapter 2 (Project Description) of this EIAR.

12.2 GUIDANCE AND PRIMARY SOURCES OF INFORMATION

- "Traffic and Transport Assessment Guidelines" - (Transport Infrastructure Ireland, May 2014);
- PE-PAG02017 - Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections" - (Transport Infrastructure Ireland, Oct 2021) -;
- TII Count Site "TMU N81 010.0 S" (https://trafficdata.tii.ie/publicmultinodemap.asp)
- "PE-PAG-02039 - Project Appraisal Guidelines for National Roads Unit 16.1 – Expansion Factors for Short Period Traffic Counts - (Transport Infrastructure Ireland, Oct 2016);
- EPA's Guidelines on the Information to be Contained in EIARs (EPA, 2022)

12.3 ASSESSMENT METHODOLOGY AND SIGNIFICANCE CRITERIA

12.3.1 METHODOLOGY ADOPTED FOR APPRAISAL AND REPORT

- Review of previous Traffic and Transport Assessment reports;
- Establishment of existing traffic flows at beginning of assessment period i.e. January 2025;
- Trip Generation and Trip Assignment – This has been used to derive the expected increase in vehicle trips associated with the continued operation of the site. The analysis undertaken has estimated the trip generation of the site over a 12-hour period, based on historic and projected tonnage of quarry materials excavated. Trip assignment has been determined by existing traffic movements at the site access junction;

- Localised Junction Modelling – assess the expected performance of the junction associated with the expected increase in quarry traffic in terms of both capacity and queueing as resulting from continued operation; and
- Determination of final significance of impacts in accordance with criteria in the EPA's Guidelines on the Information to be Contained in EIARs (EPA, 2022).

12.3.2 ASSUMPTIONS

- Vehicles used for material transport are assumed as a worst case, being 5 axle hauling vehicles with capacity for 26 tonnes of material due to impact on roads maintenance scheduling by roads authorities;
- The quarry will operate 50 weeks of the year with weekly hours of operation assumed to be 07:00 to 18:00 Monday to Friday and 07:00 to 14:00 Saturday;
- Trips generated are assumed as evenly spread across the year and evenly throughout the day;
- For traffic growth, WSP has assumption is from TII Publications Unit 5.3 – Travel Demand Projections, PE-PAG-020171: Central Growth, HV, on basis of location and N81 National Route, Higher value to ensure potential impact maximised.

12.4 BASELINE AND SUBSEQUENT CONDITIONS

The Site is on lands at Hempstown Commons, Rathmore, Co. Kildare, along the Kildare/Wicklow border. Access to the Site is via the N81 National Road, and the L6030. Regionally, the nearest town is Blessington, which is located approximately 3 km to the south of the Site. Beyond this there are several other small towns and the suburbs of Dublin in the vicinity.

Three main land uses have been identified surrounding the Site, these are agricultural and single dwelling residential lands, the L6030 road and other quarry operations. The lands to the north can be characterised as rural in nature, with land uses in the area being agricultural and single dwelling residential. The lands immediately to the northwest of the site are largely taken up by active quarrying activities operated by unrelated parties with further quarries to the southwest. There was little change in the surrounding land use over the review period, other than the addition of a single house dwelling.

It is noted that activity at the Site will include the following:

- extension of quarrying operations across an area of ca. 1.89 ha beyond the existing operations to the northeast edge of quarry involving drilling, blasting and mechanical breaking of greywacke (and shale) rock (Pollaphuca Formation);
- mobile crushing, and screening of the rock into specific aggregate sizes;
- temporary stockpiling of screened aggregate in an area to the south and west of the quarry void space; and
- loading aggregate materials onto road trucks for sale and distribution

Vehicles travelling to/from the Hempstown Quarry travel via the L6030 highlighted in black in Figure 12.1 below, access to the L6030 is provided to the N81 national road in Co. Wicklow. Photos of each arm across each junction is shown in Figures 12.2 to Figures 12.8 overleaf.

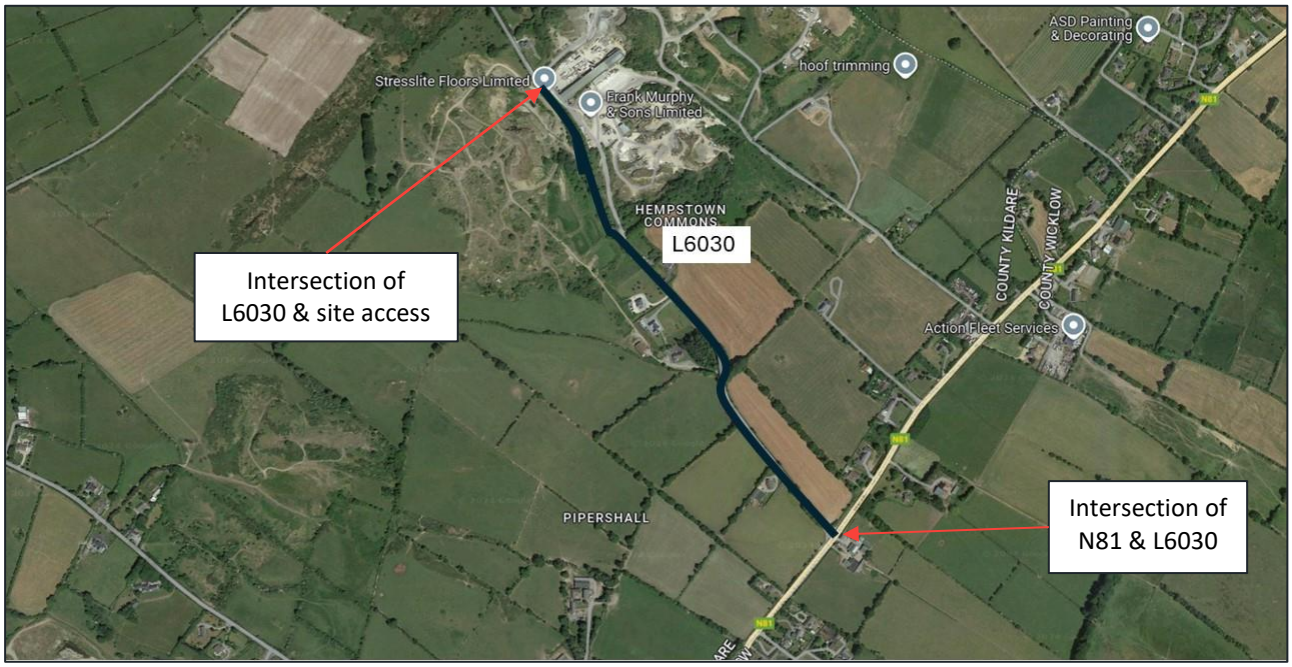


Figure 12.1 - Site Access Location

Page 4 of 21

Figure 12.2 - Main Site Access viewed from L6030

Figure 12.3 - L6030 to N81 viewed from site access

Figure 12.4 - L6030 to Killyteely from site access.

Figure 12.5 - Unused access viewed from L6030

Figure 12.6 - L6030 viewed from N81 National Road

Figure 12.7 - N81 towards Dublin, viewed from junction with L6030

Figure 12.8 - N81 south view towards Blessington

12.4.1 PRIMARY ACCESS ROUTE ROADS

12.4.1.1 The N81

The N81 is a National Secondary Road, approximately 77 km in length, travelling north-to-south from its junction with the M50 motorway (Junction 11) on the outskirts of Dublin to its junction with the N80 in Closh, Co. Carlow. The N81 provides dual carriageway standard from its junction with the M50 motorway for approximately 4 km (which includes the Tallaght bypass). Beyond this, the N81 is single carriageway road subject to the national speed limit. At its junction with the L6030, the N81 is a two-way single carriageway road with lane widths of approximately 5.5 m and a hard strip of approximately 0.5 m width on both sides of the carriageway. At the junction of the N81 Northbound with the L6030 the N81 widens to two lanes for approximately 70m either side of the junction mouth to provide space for the 4060-bus stop. There are no footpath or pedestrian crossing provisions in the vicinity of this junction. Overtaking is not permitted for 1.8km north of the L6030 junction and for 850m to the south of this junction.

12.4.1.2 The L6030

The L6030 is a local road in Kildare, approximately 4.13km in length, travelling north to south from its junction with the N81 national road north of Blessington to its junction with the L8384 just south of the village of Kilteel. The main quarry access is via this L6030 local road, which is a single carriageway road, approximately 5 m wide, subject to a 60km/h speed limit, although there are unofficial speed limit signs for a 20kph zone. The road has no hard shoulder or hard strip provision on either side of the carriageway. The L6030 provides access to several residential properties before connecting to the L8384 north of the Hempstown Quarry.

12.4.2 ROAD ACCIDENT DATA

WSP has attempted to collate road traffic collision (RTC) information from the Road Safety Authority (RSA) and TII websites. However, both authorities are in the process of reviewing their RTC data sharing policies and procedures. Record-level RTC data can't be shared until this review is complete and, as such, up to date traffic accident data is currently unavailable.

12.4.3 EXISTING TRAFFIC FLOWS

12-Hour classified turning counts were carried out at two sites on 19 September 2024: at site access/L6030 junction and the N81/L6030 junction as indicated in Figure 12.1 above. The counts took place between the hours of 07:00 and 19:00 hours, which covered not only the hours of operation of the quarry but also included the peak hours on adjacent roads network. Surveyed vehicles were broken down into eight categories as follows:

- Pedestrian
- Cyclist
- Motorcycles
- Passenger Car Equivalent
- LGV (Light Goods Vehicles)
- OGV1 (Two and Three Axle Goods Vehicles)
- OGV2 (Four and Five Axle Goods Vehicles)
- PSV (Public Service Vehicle)

These figures were factored to give Passenger Car Units (PCUs) by the survey company, utilising industry standard conversion factors. The detailed results of the Traffic Survey are included in Appendix 12A, and a summary of the results has been provided overleaf in Tables 12.1 (Site Access/L6030 Junction) and 12.2 (L6030/N81 Junction).

Table 12.1 - Traffic Survey Results, Site Access/L6030 Junction – Passenger Car Units

Hour Ending	Joint Access to SQL & Stresslite Precast	L6030 East	Unused Site	L6030 West
08:00	14.8	52.8	0.0	38.0
09:00	39.0	74.3	0.0	37.3
10:00	32.2	95.5	0.0	70.8
11:00	15.7	58.7	0.0	46.0
12:00	38.8	80.5	0.0	59.3
13:00	20.4	84.5	0.0	73.1
14:00	40.5	82.4	0.0	41.9
15:00	25.4	78.5	0.0	57.1
16:00	31.0	53.1	0.0	28.1
17:00	21.7	59.9	0.0	40.2
18:00	18.2	39.0	0.0	41.8
19:00	5.0	28.2	0.0	23.2
Period Total	302.7	787.4	0.0	556.80
Period Total HGV	108.0	179.0	0.0	142.0
% HGVs	35.7%	22.7%	0.0%	25.5%

AM Peak: 09:00 – 10:00, PM 13:00 -14:00

Table 12.2 - Traffic Survey Results, L6030/N81 Junction – Passenger Car Units

Hour Ending	N81 North	N81 South	L6030
8:00	1368.4	2239.9	90.4
9:00	1043.2	1035.2	85.7
10:00	890.4	862.0	116.6
11:00	674.1	647.5	83.0
12:00	718.8	701.5	105.7
13:00	695.5	679.5	95.7
14:00	781.2	748.3	111.1
15:00	786.0	755.2	91.2
16:00	863.8	870.4	83.4
17:00	1046.0	1048.2	76.0
18:00	1097.5	1108.7	59.4
19:00	877.9	879.5	47.8
Period Total	10842.8	11575.9	1046
Period Total HGV	981.0	852.0	687.0

% HGVs	9.0%	7.4%	65.7%

AM Peak: 07:00 – 08:00, PM 17:00 -18:00

12.4.4 HISTORIC BASELINE TRAFFIC FLOWS

It is envisaged that the period required to process and approve this application will be one year and therefore – for the purposes of this assessment – it is proposed that quarrying operations will begin in 2026, which will become the baseline "Year of Opening" as modelled within the traffic flow diagrams and junction capacity analyses contained within Appendix 12A.

12.4.5 TRAFFIC GROWTH

Traffic Growth has been utilised as per Table 6.2 of TII Guidance – "Project Appraisal Guidelines for National Roads, Unit 5.3 – Travel Demand Projections" with the relevant extract included below in Table 12.3. A central growth rate for light vehicles has been applied in this case on the basis that traffic along the N81 is predominantly made up of commuters to/from the greater Dublin area. There are two designated growth rates across the assessment period - between 2026 & 2030 the rate is 1.0197 and between 2030 and 2040 the rate is 1.0062.

Table 12.3 - Estimated Breakdown of Trip Rates per Day

Year	Annual Growth Rate (Kildare, Central LV)		Cumulative Growth Rate
	2016-2030	2030-2040	
2024 (Traffic Counts)	1.0197	-	1
2025	1.0197	-	1.0197
2026 (Year of Opening)	1.0197	-	1.0398
2027	1.0197	-	1.0603
2028	1.0197	-	1.0812
2029	1.0197	-	1.1025
2030	1.0197	-	1.1241
2031	-	1.0062	1.1311
2032	-	1.0062	1.1382
2033	-	1.0062	1.1452
2034	-	1.0062	1.1523
2035	-	1.0062	1.1595
2036	-	1.0062	1.1666
2037	-	1.0062	1.1738
2038	-	1.0062	1.1811
2039	-	1.0062	1.1884

2040	-	1.0062	1.1958

The “Traffic and Transportation Assessment Guidelines” published by TII recommend assessment of traffic in the Opening year, for the Opening Year +5 years and the Opening Year +15 years; however, this application is limited to an extraction period of 12 years (202 and a further restoration period of 2 years. The extraction period (2026 to 2038) will generate trips to and from the site, whereas the restoration period (2038 to 2040) will avail of stockpiled information on site and so will not generate any traffic along the nearby public roads network.

12.4.6 TRIP GENERATION

Chapter 2 of this EIAR gives an overview of the development that is the subject of this assessment. It details the development of the site across the assessment period and confirms the total volume of material extracted as 1,757,500 tonnes spread across the first twelve years of the assessment period (i.e. 146,458 tonnes per year between 2026 and 2038).

12.4.6.1 Quarry Extraction Trips

Estimations of quarry extraction rates indicate forecasted extraction quantities as calculated below in Table 12.4, which have been further extrapolated in line with the assumptions in Section 12.3.2.

Table 12.4 - Estimated Breakdown of Extraction Trip Rates per Day

Year	Est. Annual Material Extraction (Tonnes)	Est. Annual extracted loads (HGVs)	Est. Weekly extracted loads (HGVs)	Est. Hourly extracted loads (HGVs)	Est. Hourly Trips (HGV arrivals & departures)
2026	146,458	5633	113	1.82	4
2027	146,458	5633	113	1.82	4
2028	146,458	5633	113	1.82	4
2029	146,458	5633	113	1.82	4
2030	146,458	5633	113	1.82	4
2031	146,458	5633	113	1.82	4
2032	146,458	5633	113	1.82	4
2033	146,458	5633	113	1.82	4
2034	146,458	5633	113	1.82	4
2035	146,458	5633	113	1.82	4
2036	146,458	5633	113	1.82	4
2037	146,458	5633	113	1.82	4
2038	146,458	5633	113	1.82	4

12.4.6.2 Staff Trips

As indicated in Chapter 2 of this EIAR, the quarry directly employed 4no plant operators and 2no administration staff on the weighbridge, all of which generated 6 arrivals and 6 departures daily, all of which are expected to generated in the first and last hour of the quarry opening hours, all of which are expected to be generated in the first and last hour of the quarry opening hours alongside AM and PM peaks.

12.4.6.3 Miscellaneous Trips

Other ancillary operations on site include refuelling, blasting, and waste collection each of which are carried out by a third party and would only generate ad-hoc trips. An assumption of 4no trips (2 in and 2 out) has been made for this site. For the purposes of this assessment, we have robustly assumed that these trips will take place in both the peak periods.

12.4.6.4 Restoration Work Trips

Chapter 2 of this EIAR confirms that the restoration work avails of material stockpiled on-site with internal quarry vehicles carrying out all works. With no generated trips across the nearby road network, this activity does not form part of this assessment.

12.4.6.5 Derived Trip Rates

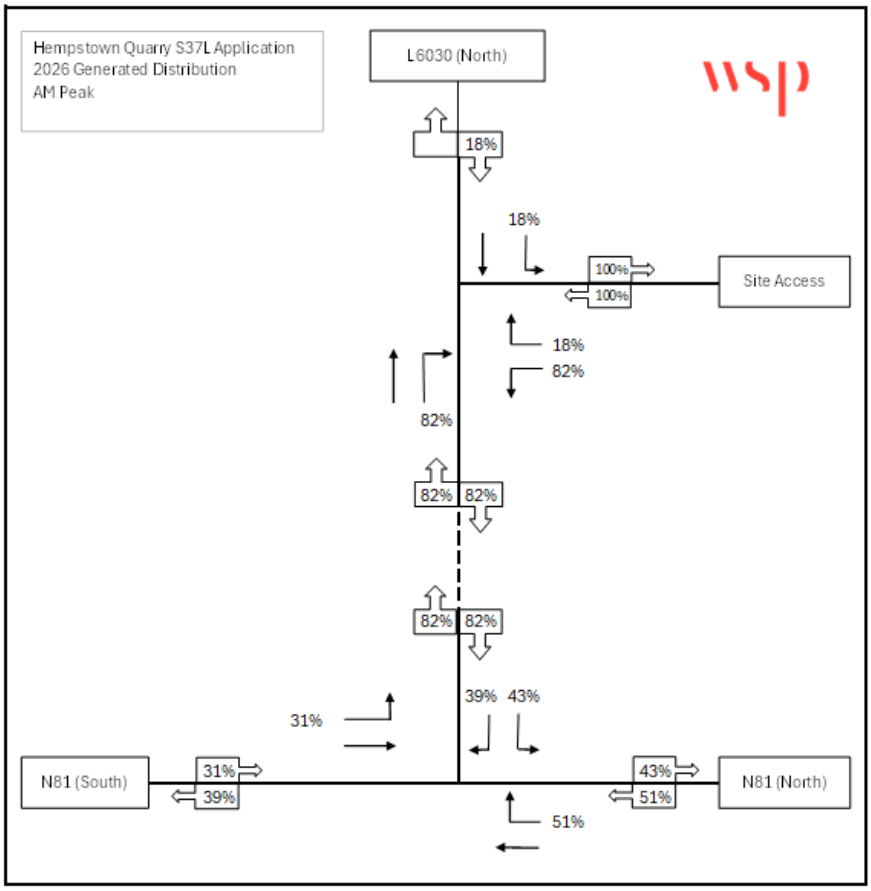
Table 12.5 below summarises the daily and peak hour arrivals/departures to be included in this assessment

Table 12.5 – Daily and Peak Hour Trips

Source of Generated Trip	Daily Trips	Peak Hour Arr		Peak Hour Dep	
		AM	PM	AM	PM
Material Extraction	40	4	4	4	4
Directly Employed Staff	12	6	-	-	6
Miscellaneous	4	2	2	2	2
Total	**56**	**12**	**6**	**6**	**12**

12.4.6.6 Generated Trip Distribution

The generated trip distribution will follow existing flow patterns, which have been calculated from arrivals and departures across individual peak period under assessment. These are indicated in Figure 12.9 overleaf with total generated flows confirmed in Figure 12.10.



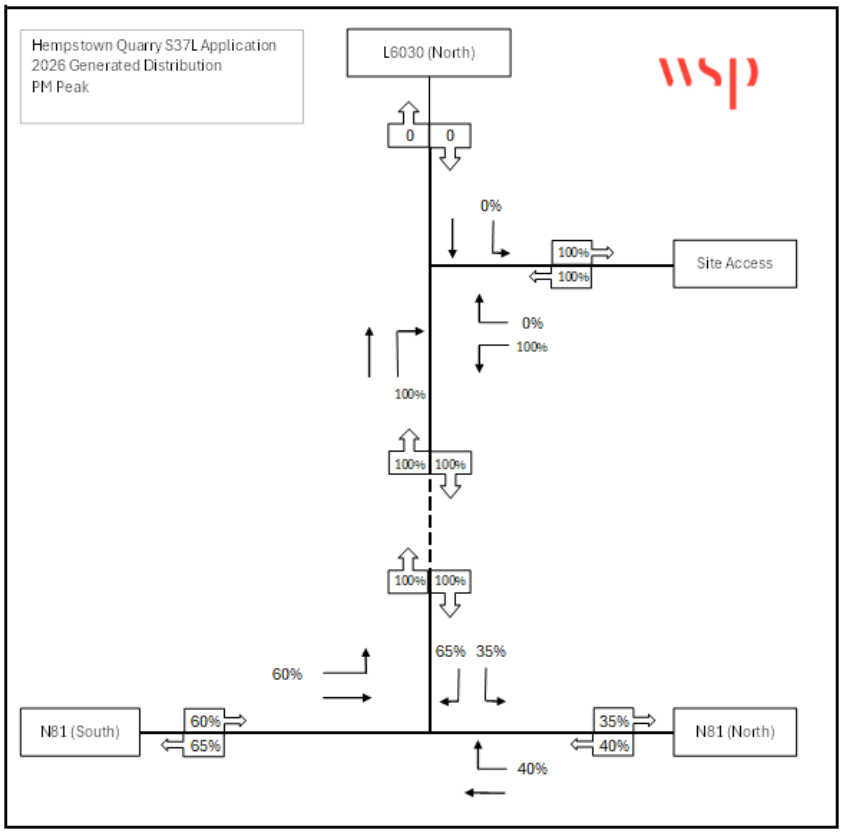


Figure 12.9 - Generated Flow Distribution across AM & PM Peaks

Page 14 of 21

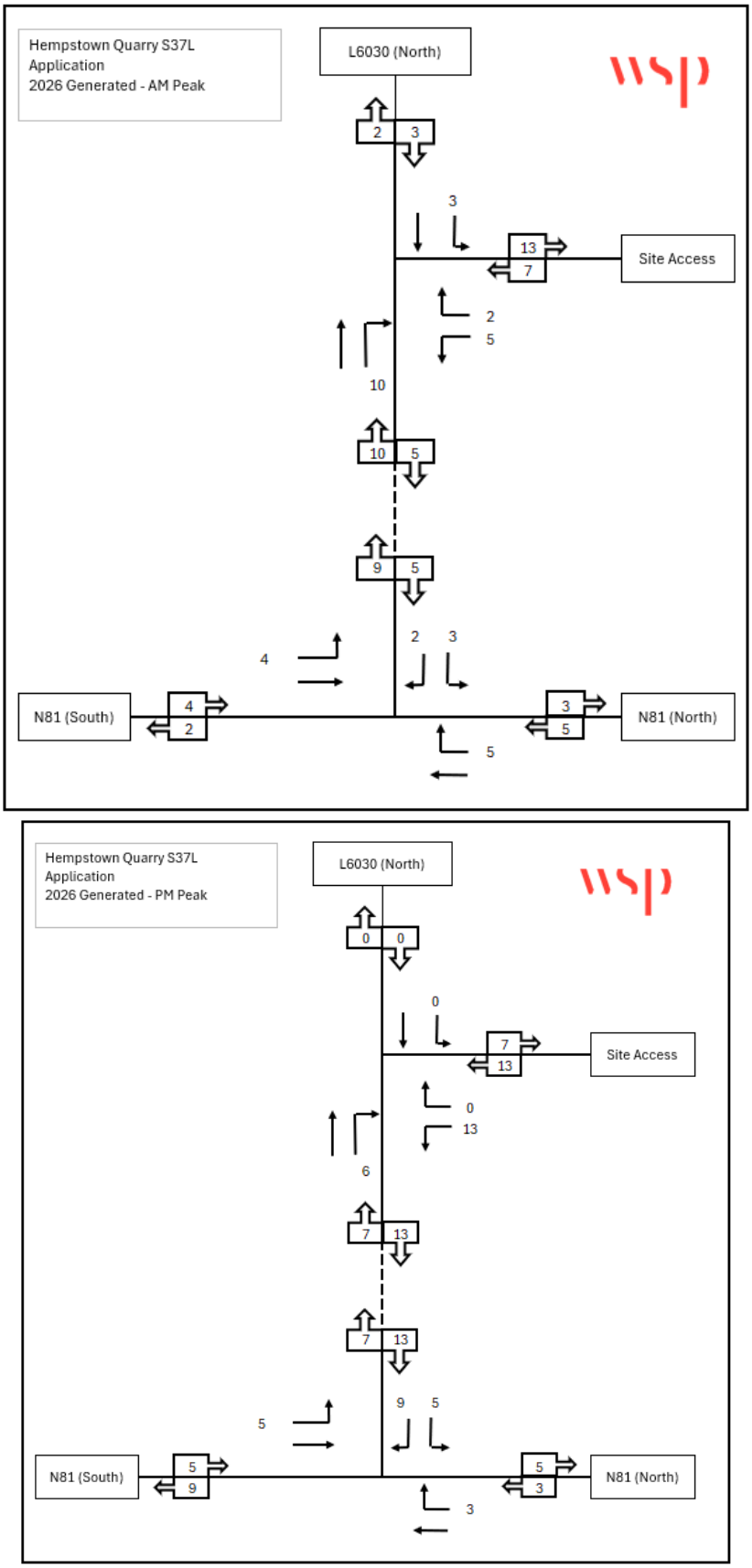


Figure 12.10 - Generated Flows across AM & PM Peaks

12.5 POTENTIAL EFFECTS

12.5.1 INFRASTRUCTURE NETWORK IMPACTS

12.5.1.1 Link Capacity Assessment

TII document “PE-PDV-02045 - Traffic and Transport Assessment Guidelines” offers advice on investigating how traffic generated by developments impact existing road infrastructure networks. Whilst it generally accepted that the existing local roads network can accommodate a certain level of additional traffic, there are specific parameters which inform whether additional studies are needed to assess network capacity.

Table 2.1 of the above document together with the “Traffic Management Guidelines” (Department of Transport, 2003) include several key thresholds beyond which incur additional assessments, namely the following:

- Traffic to and from the development exceeds 10% of the traffic flows on the adjoining road;
- Traffic to and from the development exceeds 5% of the traffic flows on the adjoining road where congestion exists, or the location is sensitive.

TII document “PE-PDV-02045 - Traffic and Transport Assessment Guidelines” also indicates that a threshold approach should also be used to establish the area of influence of the development, whereby

> *“the study area should include all road links and associated junctions where traffic to and from the development may be expected to exceed 10% of the existing traffic movements, or 5% in congested or other sensitive locations, including junctions with National Roads.”*

Figure 12.11 overleaf indicates the percentage increase in flows through each junction on opening of the quarry in the AM & PM peaks. For both junctions, the 10% threshold is exceeded and therefore requires more in-depth analyses of junction capacity.

Page 16 of 21

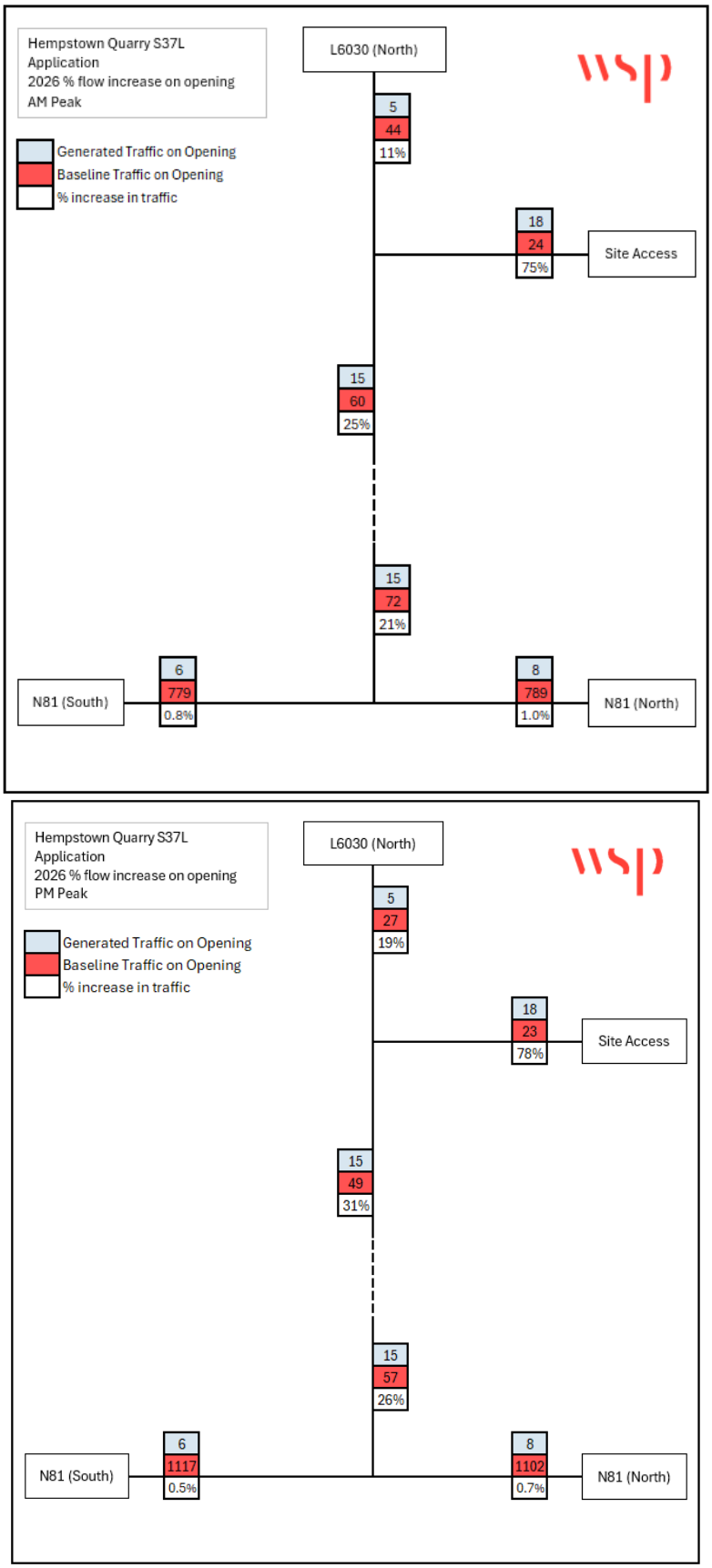


Figure 12.11 - Impact of Generated Traffic on Existing Roads Network

12.5.1.2 Junction Capacity Analysis

Junctions 9 (PICADY) models have been built for various time-based scenarios as indicated below and include existing baseline and generated traffic flows referred to previously. They assess three key criteria for both the L6030/site access junction as well as the L6030/N81 junction as follows:

- 95th percentile queue length (50th percentile is average & 100th percentile is maximum);
- Delay (average time vehicles must wait at give way/stop line before entering a junction) and
- Ratio of Flow to Capacity, RFC (how efficiently flows are moving through the junction).

Table 12.6 – Junctions 9 (PICADY) Analysis - L6030/site access junction

Assessment Scenario	Arm	95th %tile queue length (vehs)		Delay (s)		RFC	
		AM	PM	AM	PM	AM	PM
2026 Baseline	Site Access L6030 (South)	0.5 0.5	0.5 0.5	4.62 5.19	4.47 5.20	0.02 0.02	0.01 0.02
2026 Baseline + Generated	Site Access L6030 (South)	0.5 0.5	0.5 0.5	4.70 5.28	4.55 5.25	0.03 0.03	0.03 0.03
2038 Baseline	Site Access L6030 (South)	0.5 0.5	0.5 0.5	4.63 5.20	4.48 5.20	0.02 0.02	0.02 0.02
2038 Baseline + Generated	Site Access L6030 (South)	0.5 0.5	0.5 0.5	4.72 5.29	4.57 5.25	0.03 0.03	0.03 0.03

Table 12.7 – Junctions 9 (PICADY) Analysis L6030/N81 junction

Assessment Scenario	Arm	95th %tile queue length (vehs)		Delay (s)		RFC	
		AM	PM	AM	PM	AM	PM
2026 Baseline	L6030 N81 (North)	0.5 0.5	0.5 0.5	8.73 5.20	9.86 3.46	0.09 0.05	0.10 0.03
2026 Baseline + Generated	L6030 N81 (North)	0.5 0.6	0.5 0.5	8,85 5.28	10.34 3.49	0.10 0.06	0.13 0.04
2038 Baseline	L6030 N81 (North)	0.5 0.6	0.5 0.5	9.41 5.21	10.90 3.31	0.10 0.06	0.12 0.04
2038 Baseline + Generated	L6030 N81 (North)	0.5 0.9	0.5 0.5	9,55 5.29	11.48 3.34	0.12 0.07	0.16 0.05

It is generally accepted by the industry that an RFC value of 0.85 indicates the point beyond which junctions operate beyond capacity. Once this point is passed, motorists begin to react slower than normal given the volumes of queuing vehicles causing a knock-on reduced efficiency of movement. The RFCs for all arms under assessment are well below this threshold, with a maximum value of 0.16.

12.5.2 ROAD SAFETY

12.5.2.1 Site Access

Site access is via the L6030, with all generated traffic accessing via its junction with the N81 and will involve a right in and left out approach. Drawing containing swept path analyses are included in Appendix 12B.

12.5.2.2 Sightlines and Visibility

To facilitate safe access through a priority junction from a minor arm onto a major arm, visibility splays are required to ensure that motorists have adequate sightlines to oncoming traffic. These are determined by the level of traffic using the minor arm and the speed of traffic along the major arms. The “x” distance is the set-back from the stop/yield line and represents the driver’s eye location when stationery at the junction and is determined using TII document DN-GEO-03060, Table 5.4. The “y” distance represents the distance that the motorist can see in both directions along the major arm of the junction and corresponds to the stopping sight distances taken from TII document DN-GEO-03031, Table 1.3.

Table 12.8 below indicates the requirements for each junction under consideration in this assessment – namely the L6030/site access junction and the N81.L6030 junction. These visibility splays are indicated in Appendix 12B.

Table 12.8 – Visibility Splays at Junctions

Junction	“x” distance	“y” distance
L6030/site access	2.0m	120m
N/81/L6030	3.0m	160m

12.5.2.3 Public Transport

Bus stops are located within proximity to the quarry access on the N81. Dublin Bus Route 65 operates between Blessington and Dublin and serves northbound bus stop 4060 approximately every 15 minutes at AM peak and every 60mins at PM peak. The southbound bus stop 4018 is served approximately every 60mins at AM peak and 30mins at PM peak. Both these bus stops re located within 1km of the site and are made up of hardstanding areas with no shelters, hailing poles and raised kerbs.

12.5.2.4 Parking

The quarry employs approximately 6 full-time staff and caters for contracted drivers during periods of high demand. There are currently 6 informal parking spaces within the site adjacent to the site offices. The formal parking provision, combined with the overflow space provides sufficient parking capacity for operations on site. It is proposed that the hardstanding parking area can be moved as operational needs require.

12.5.2.5 Pedestrians and Cyclists

There is no footpath provision on the N81 surrounding the junction with the L6030, neither is there any crossing provision to link the bus stops though there are areas of hardstanding at bus stops 4060 and 4018 located within 40m of the junction. There are no current cycle lanes or other facilities on the N81, nor are there any bespoke cycling facilities on site.

12.5.2.6 Assessment of Significance – Road Safety

There are no anticipated elements for Road Safety. The site is accessed by HGVs and Car traffic only, with no real scope for staff to access by other means. Additionally, the continued site operations have not highlighted any specific areas of concern.

12.6 REMEDIAL MEASURES REQUIRED

The junction capacity results above confirm that there are no requirements for remedial measures directly attributable to the traffic levels generated by the proposed development; however, the Applicant is seeking to regularise an historic arrangement whereby the existing access haul route is located within third party lands.

The Applicant currently owns a strip of lands alongside the boundary between SQL and Stresslite Precast, which currently accommodates the water storage tank, wheel wash facility, weigh bridge and cabin. It is proposed to relocate these facilities as indicated in Appendix 12B so that the horizontal realignment of the access haul route can be adjusted to ensure that it is within the curtilage of the Applicant's lands. Vertical realignment will adjust the longitudinal crown of the access haul route and so reduce current levels of surface water run-off into adjacent sites/public roads. The drawings in Appendix 12B also show the realigned layout along with associated long section and cross sections with Table 12.9 below indicating adjustments to the existing ground profile.

Table 12.9 – Adjustments to existing ground profile

Chainage	Level adjustment to existing ground profile
CH 0	-0.00m
CH 20	-0.01m
CH 40	-0.29m
CH 60	-0.37m
CH 80	-0.29m
CH 100	-0.71m
CH 120	+0.04m

12.7 RESIDUAL EFFECTS

The HGV and vehicular traffic car park currently serving the site is accessed off the existing access haul route. It is located within lands belonging to a third party, who retains a right to access these lands following the proposed upgrades. Table 12.9 above indicates that any vertical alignment adjustments will not incur any significant level differences between the new alignment and the car park – a simple vertical profile adjustment will maintain this access.

It is expected that relocation of the existing facilities and realignment of the haul route access will limit access to the quarry; however, it is anticipated that the works will take no longer than 4 weeks. During this time, the Applicant is expected to plan and implement an effective traffic management plan to mitigate residual effects on the nearby road network.

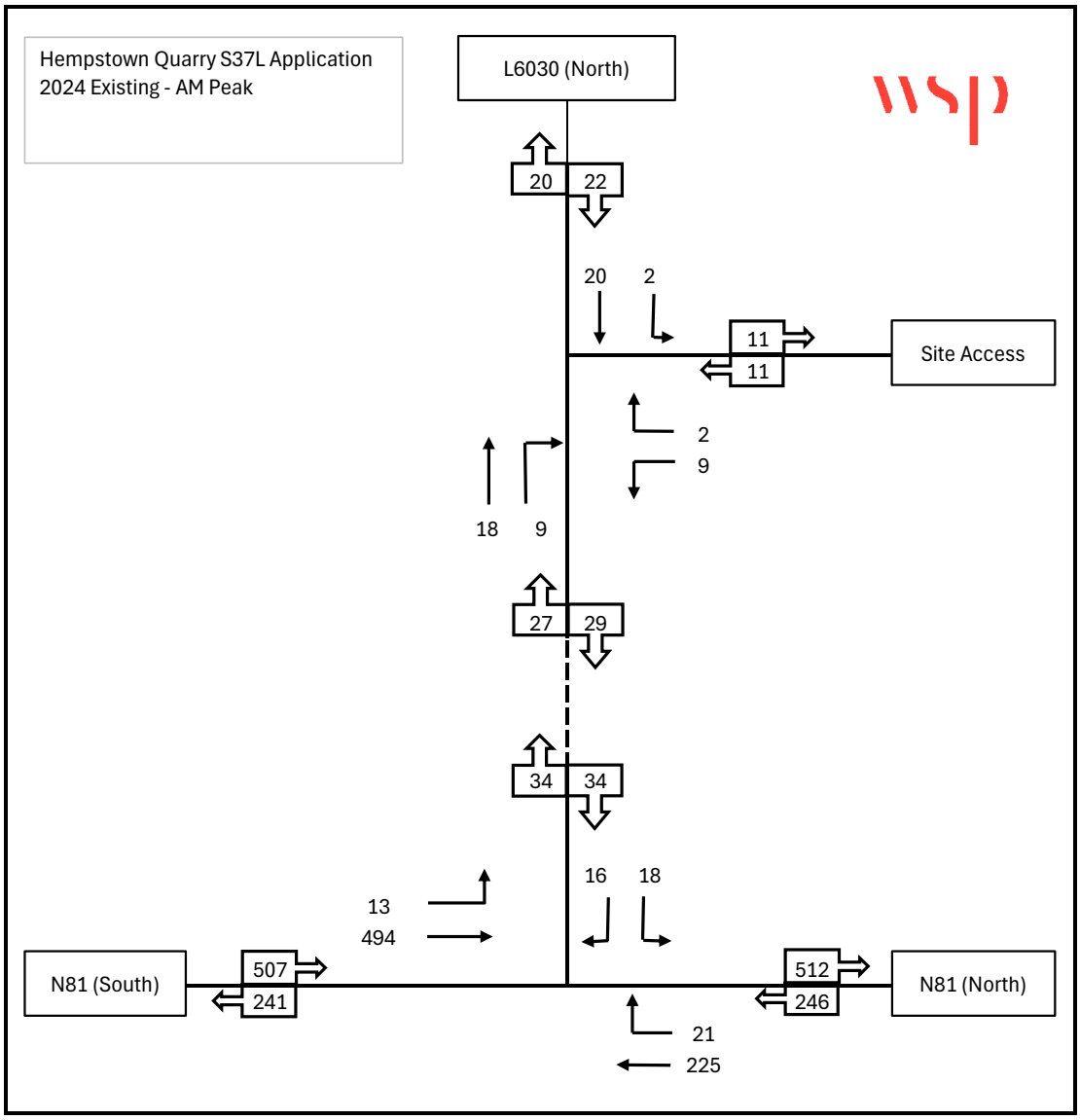
12.8 CUMULATIVE EFFECTS

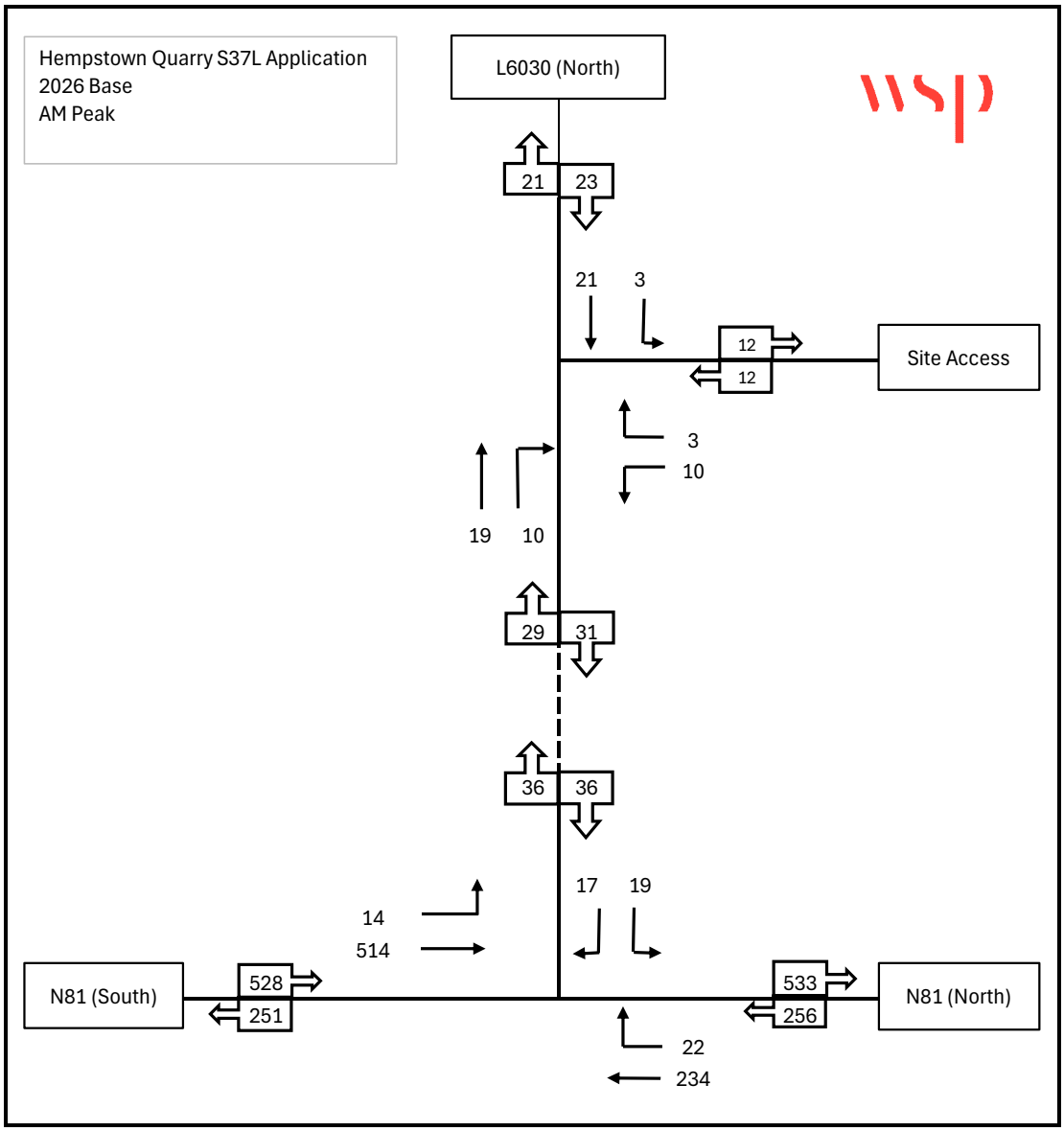
The cumulative effects associated with other permitted / under construction third-party developments have been considered in Chapter 15 of this EIAR. Cumulative effects are considered to be **Not Significant**.

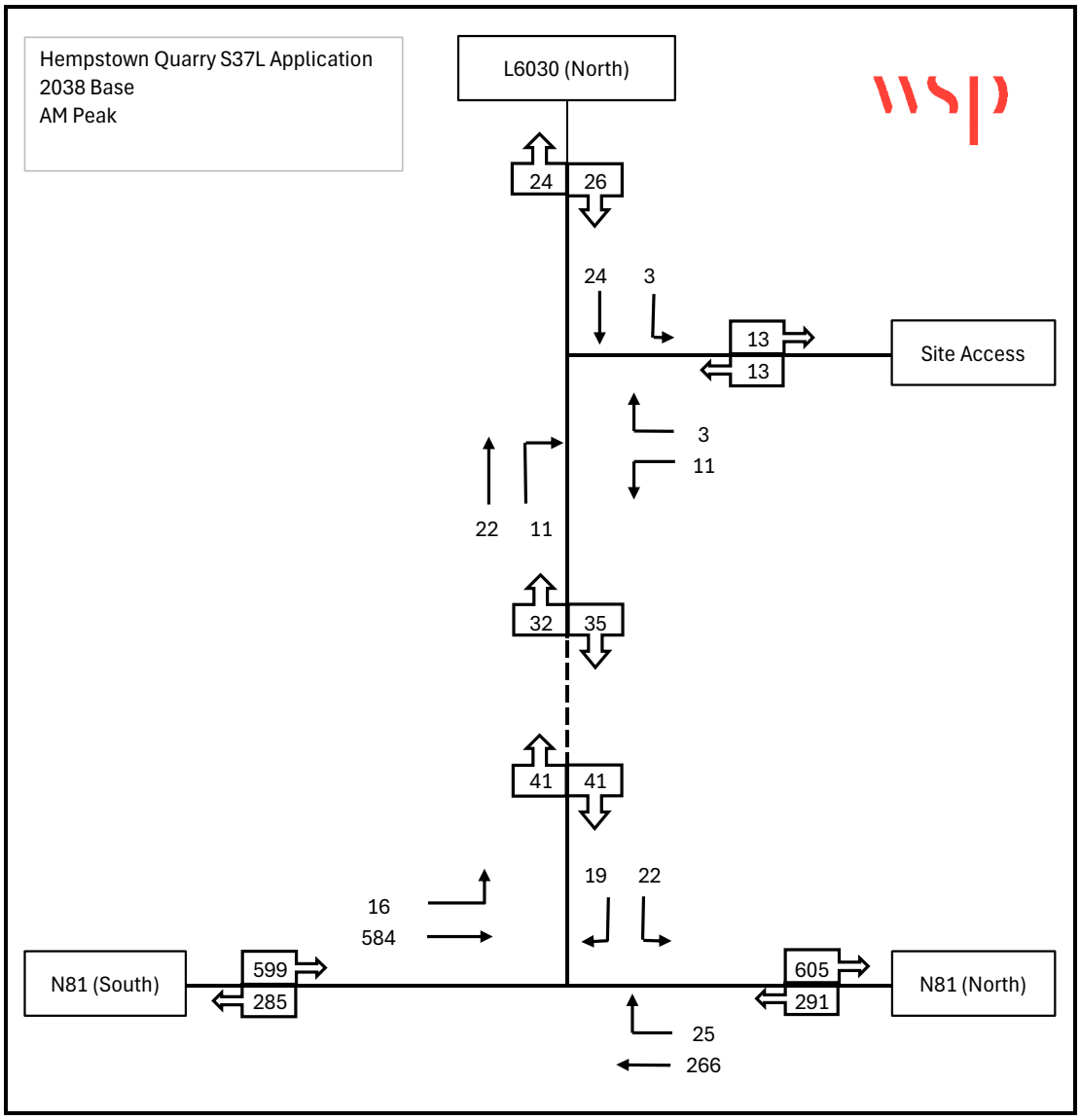
Page 21 of 21

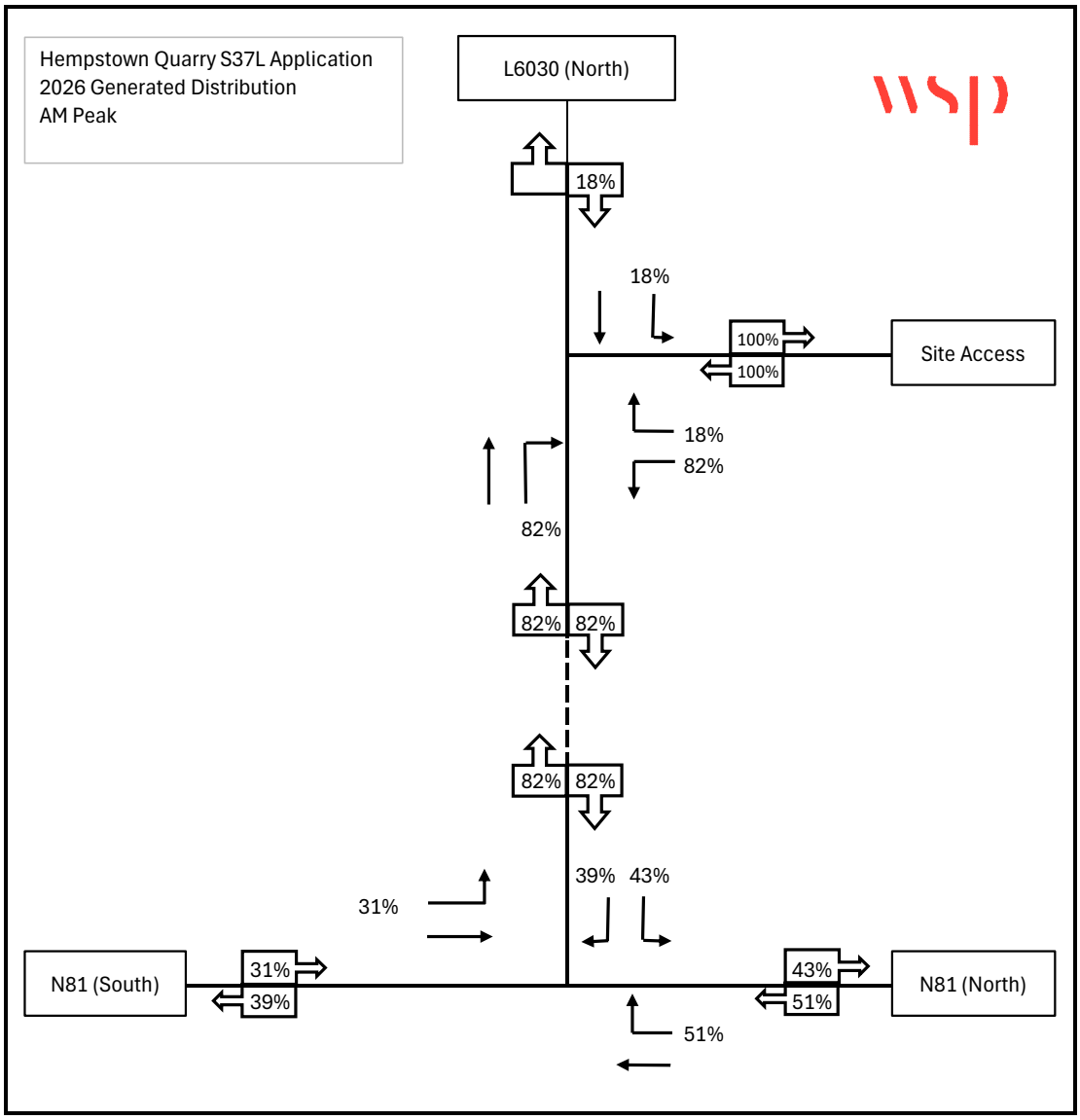
Appendix 12A.

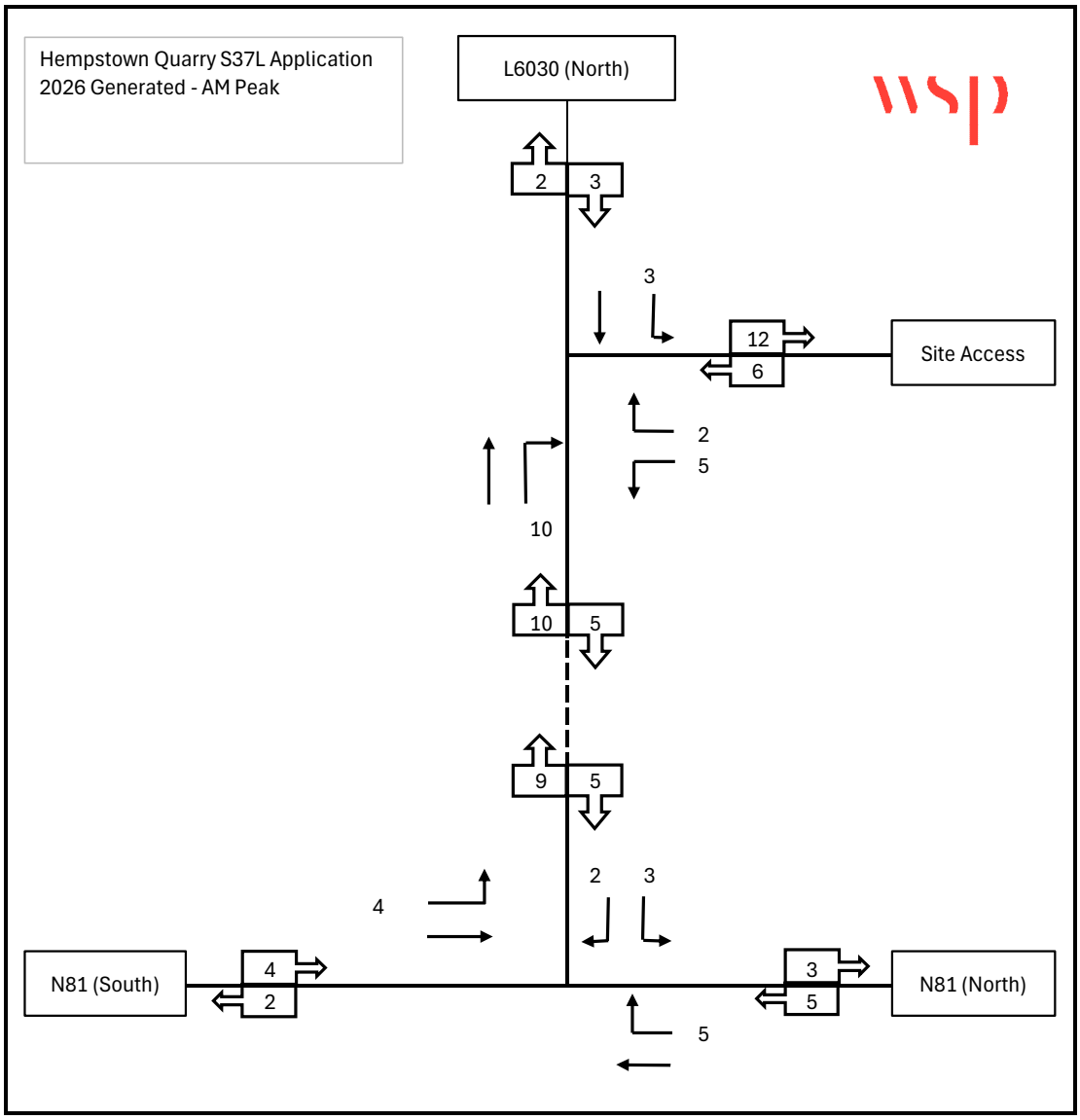
TRAFFIC FLOW DIAGRAMS & JUNCTIONS 9 (PICADY) OUTPUTS

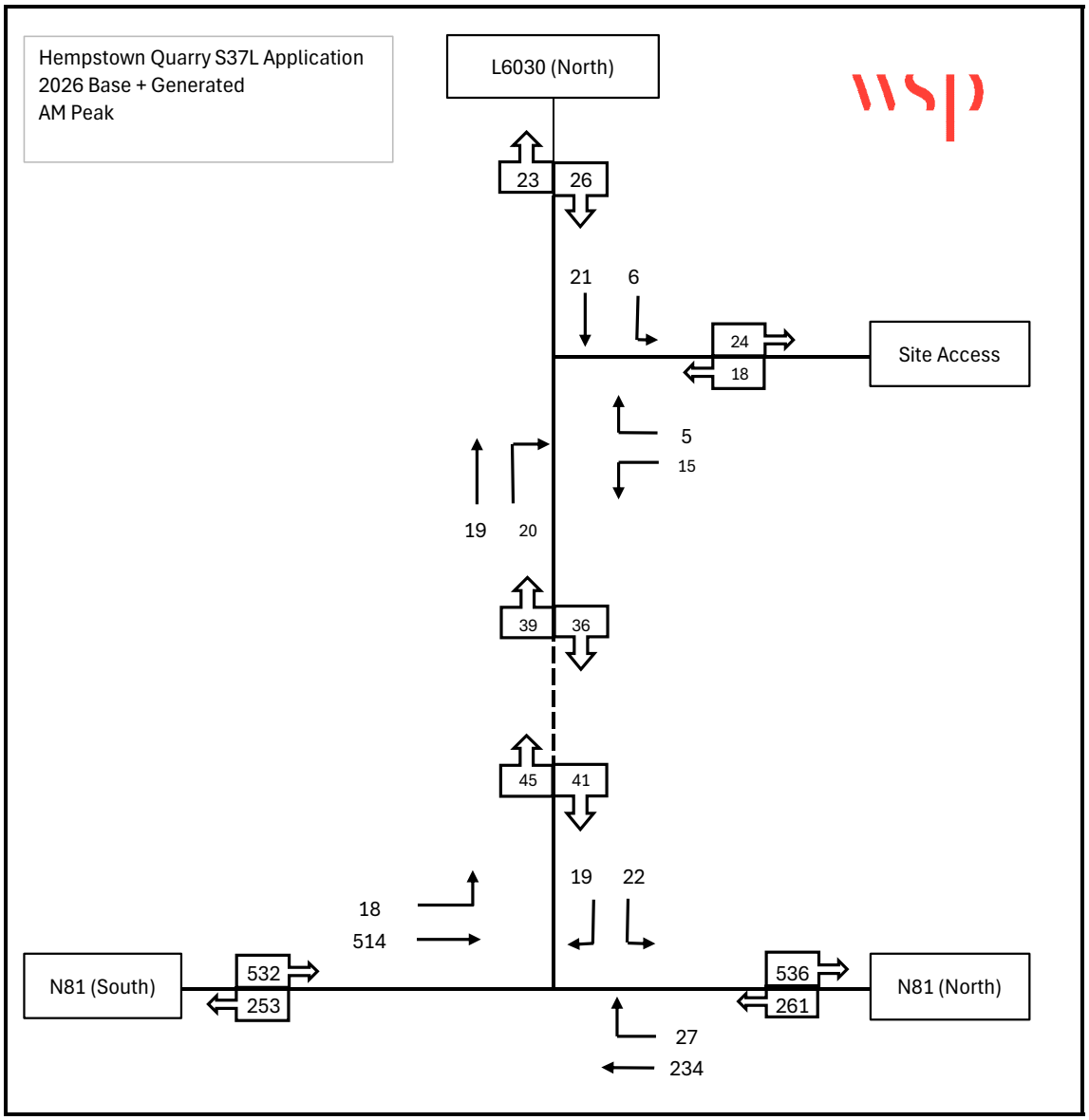

Hempstown Quarry S37L Application
2024 Existing - AM Peak
L6030 (North)
20
22
20
2
11
11
Site Access
2
9
18
9
27
29
34
34
16
18
13
494
N81 (South)
507
241
512
246
N81 (North)
21
225

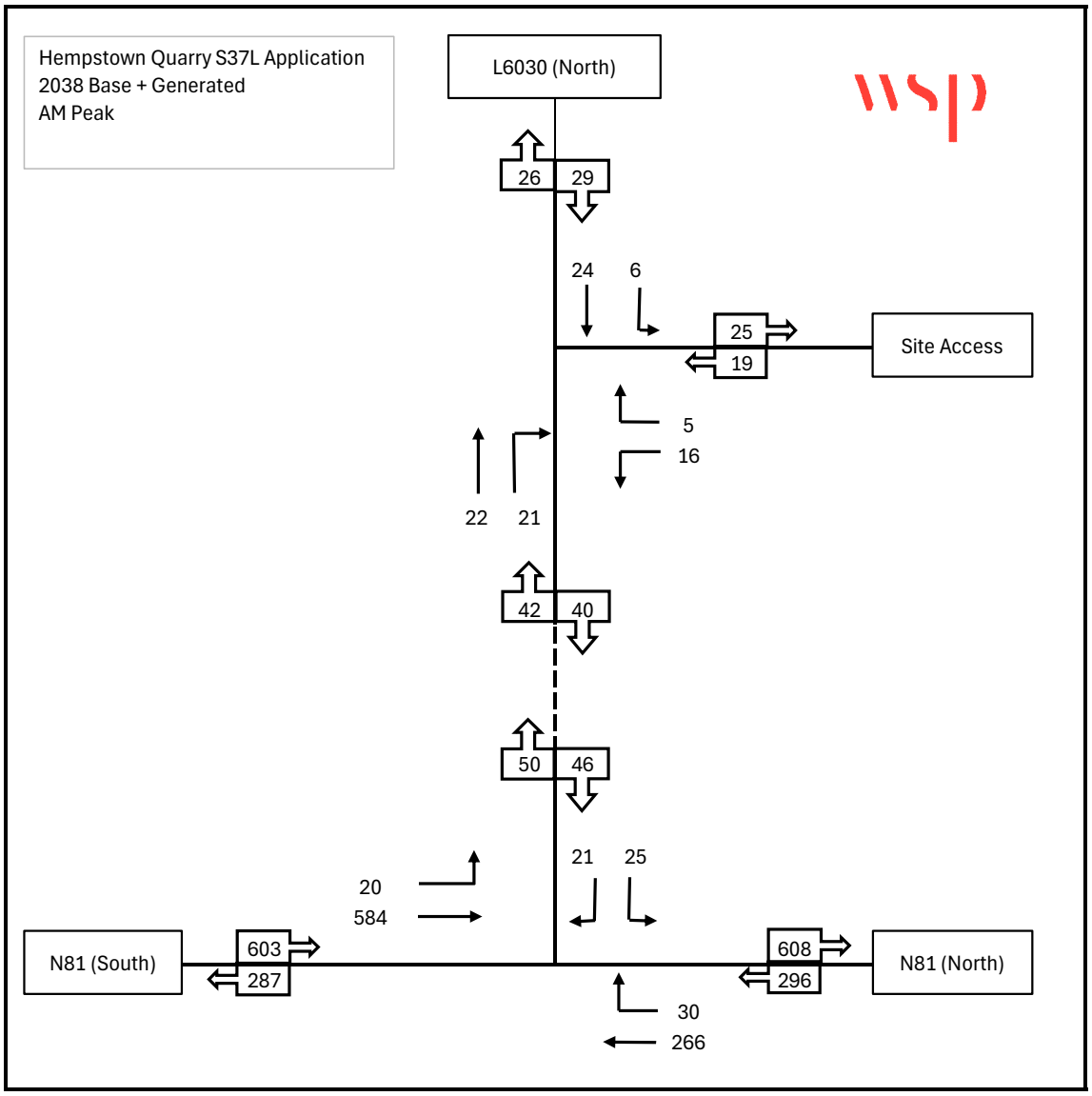

Hempstown Quarry S37L Application
2026 Base
AM Peak
L6030 (North)
21
23
21
3
12
12
Site Access
3
10
19
10
29
31
36
36
17
19
14
514
N81 (South)
528
251
533
256
N81 (North)
22
234

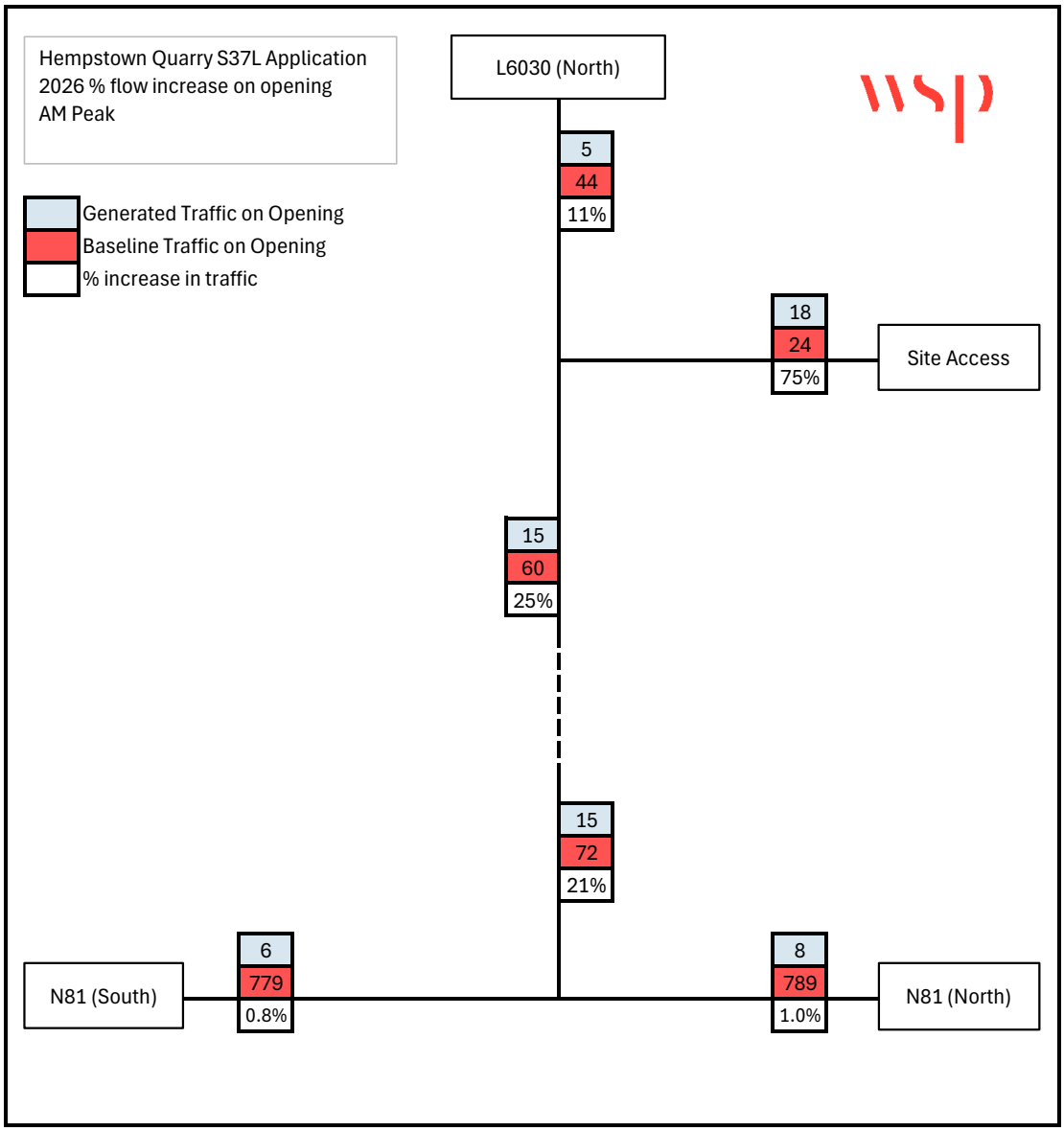

Hempstown Quarry S37L Application
2038 Base
AM Peak
L6030 (North)
24
26
24
3
13
13
Site Access
3
11
22
11
32
35
41
41
19
22
16
584
N81 (South)
599
285
605
291
N81 (North)
25
266

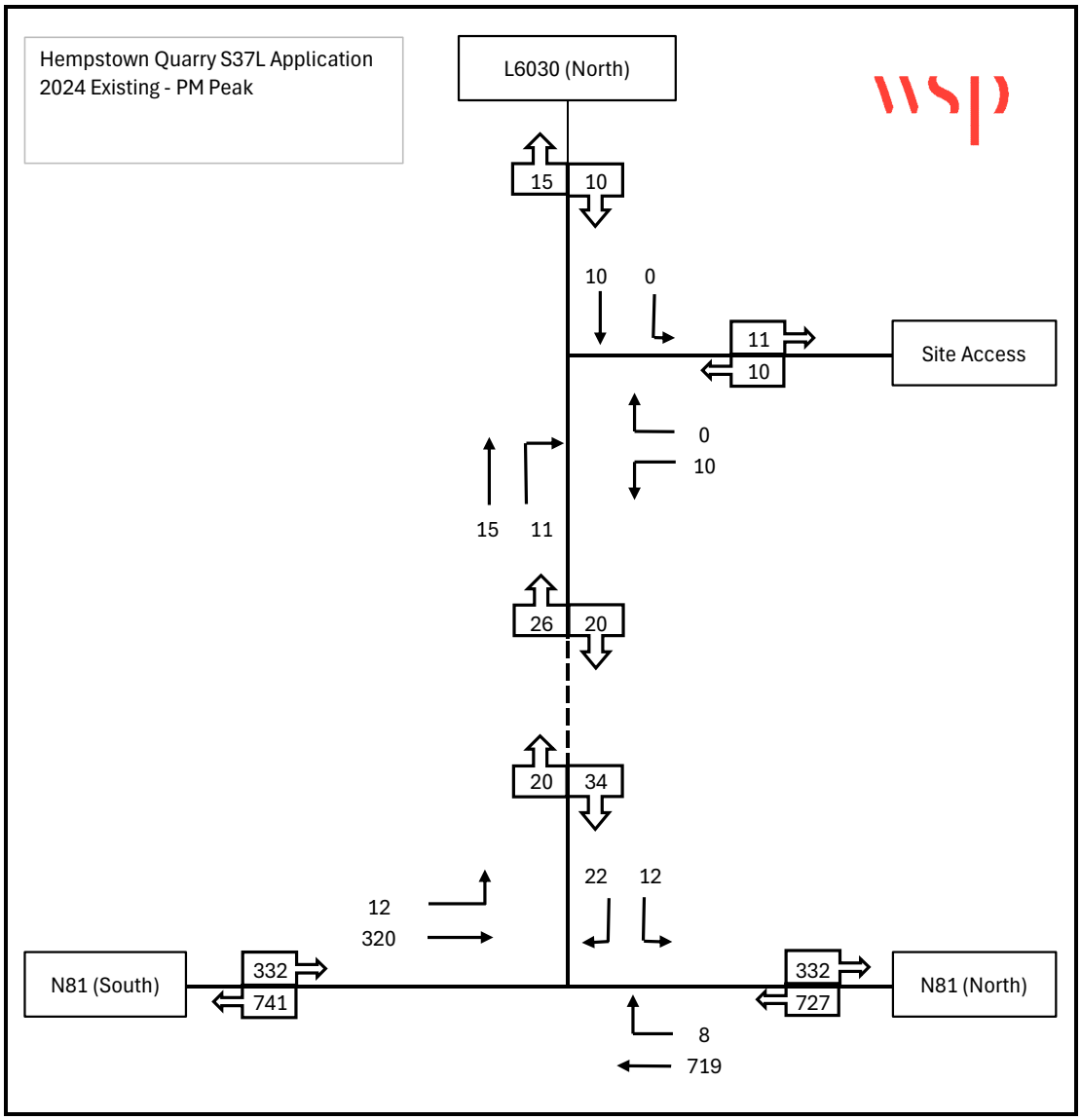

Hempstown Quarry S37L Application
2026 Generated Distribution
AM Peak
L6030 (North)
18%
18%
100%
100%
Site Access
18%
82%
82%
82%
82%
82%
82%
39%
43%
31%
N81 (South)
31%
39%
43%
51%
N81 (North)
51%

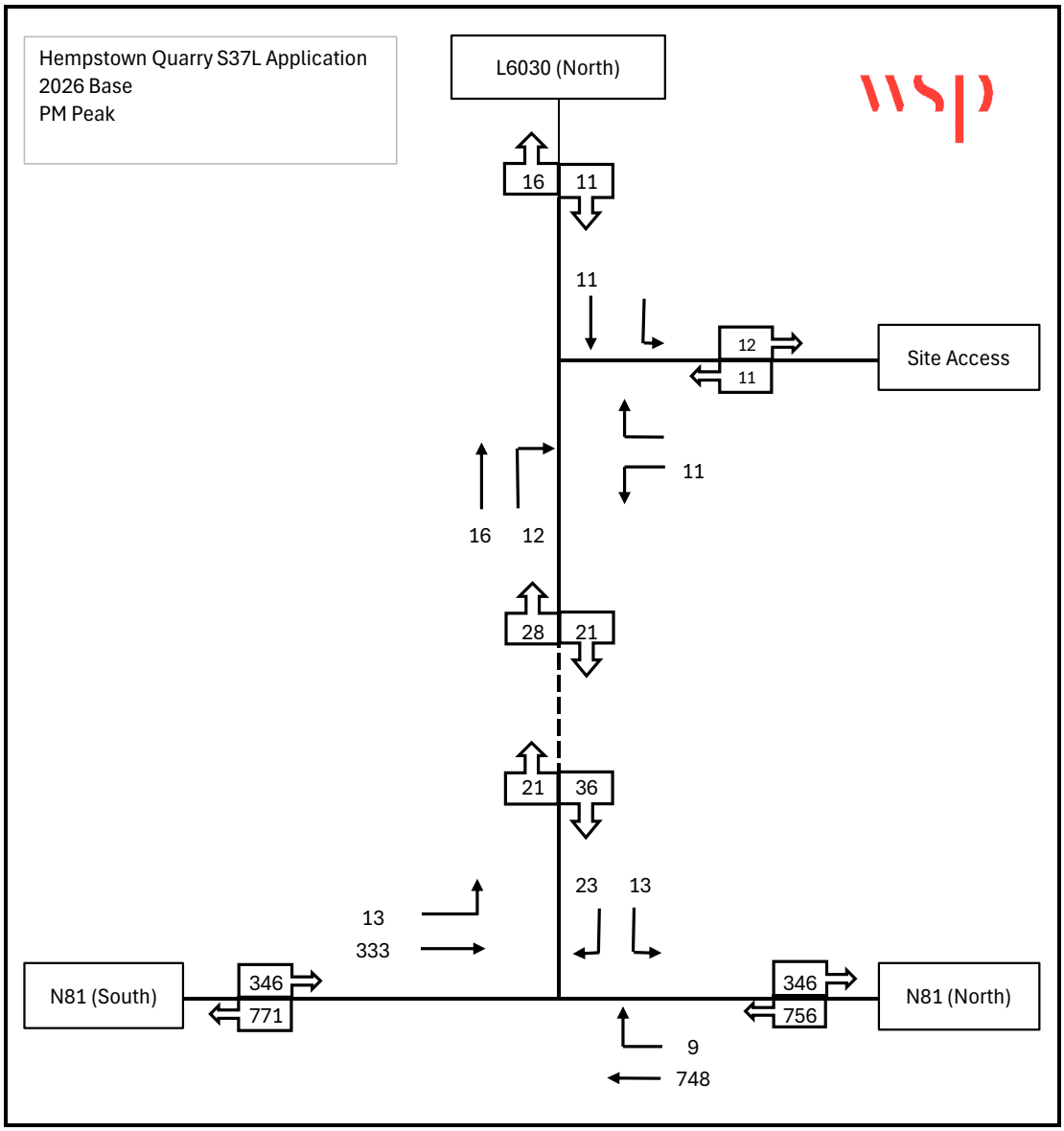

Hempstown Quarry S37L Application
2026 Generated - AM Peak
L6030 (North)
2
3
3
12
6
Site Access
2
5
10
10
5
9
5
2
3
4
N81 (South)
4
2
3
5
N81 (North)
5

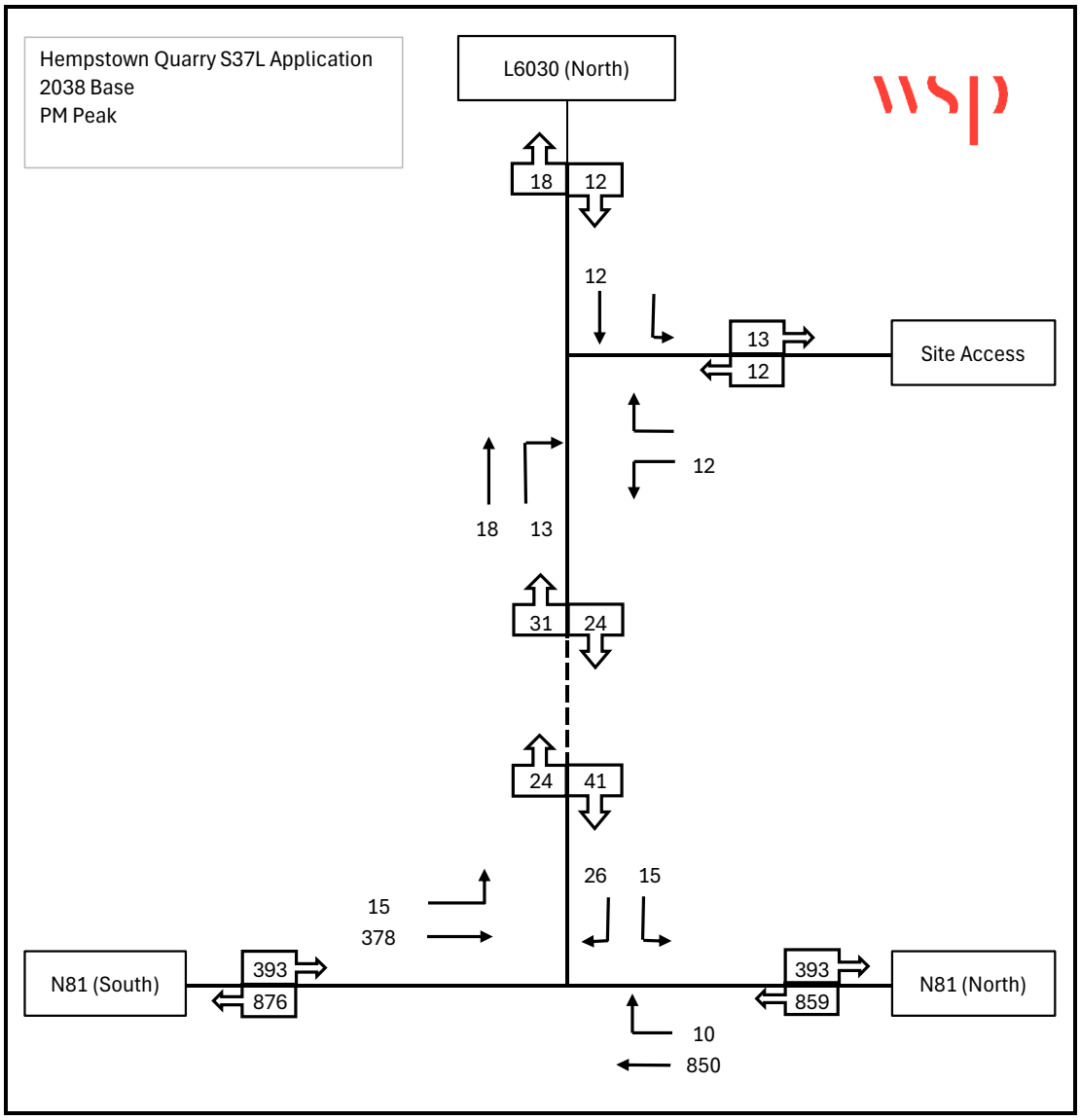

Hempstown Quarry S37L Application
2026 Base + Generated
AM Peak
L6030 (North)
23
26
21
6
24
18
Site Access
5
15
19
20
39
36
45
41
19
22
18
514
N81 (South)
532
253
536
261
N81 (North)
27
234

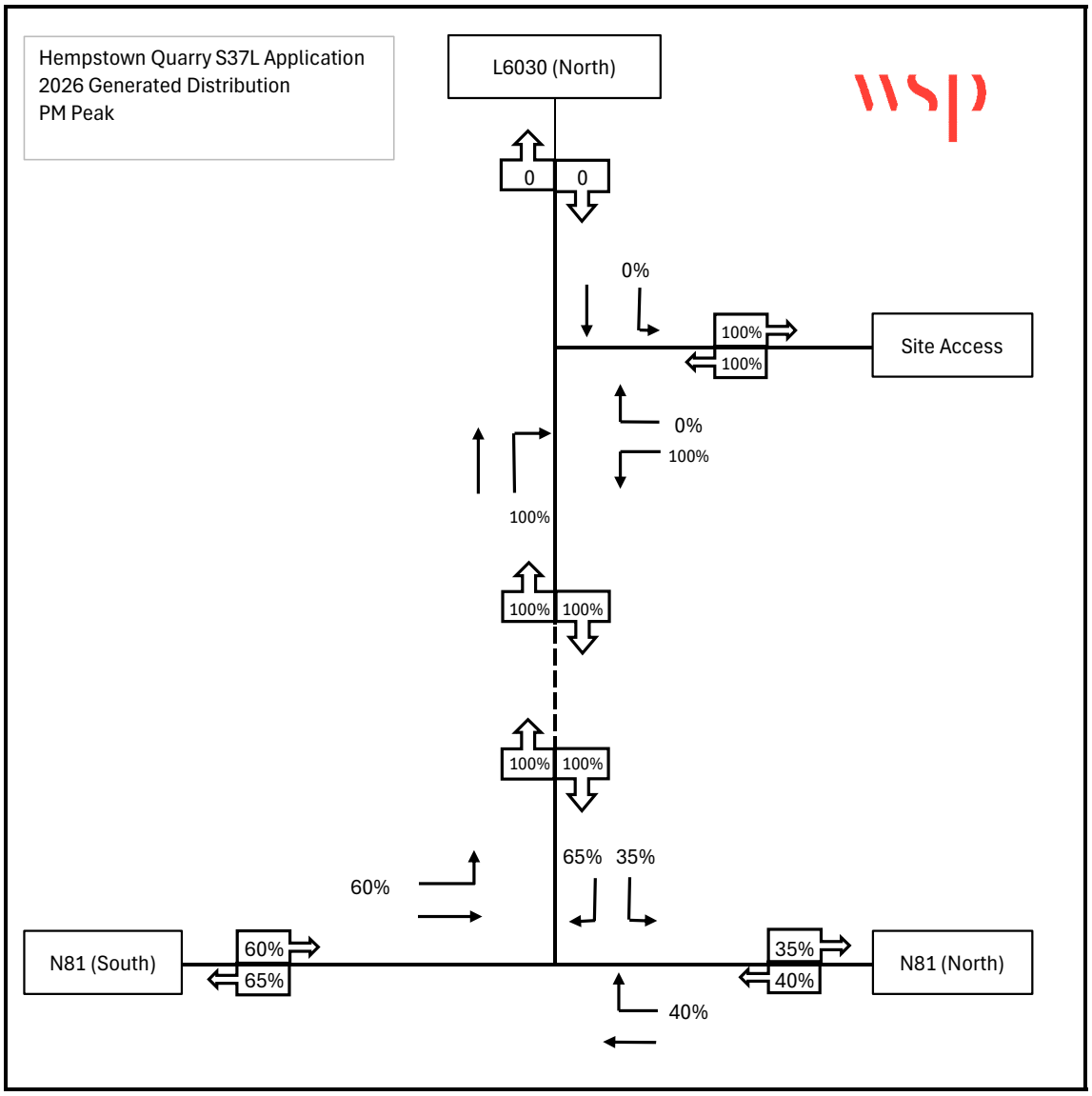

Hempstown Quarry S37L Application
2038 Base + Generated
AM Peak
L6030 (North)
26
29
24
6
25
19
Site Access
5
16
22
21
42
40
50
46
21
25
20
584
N81 (South)
603
287
608
296
N81 (North)
30
266

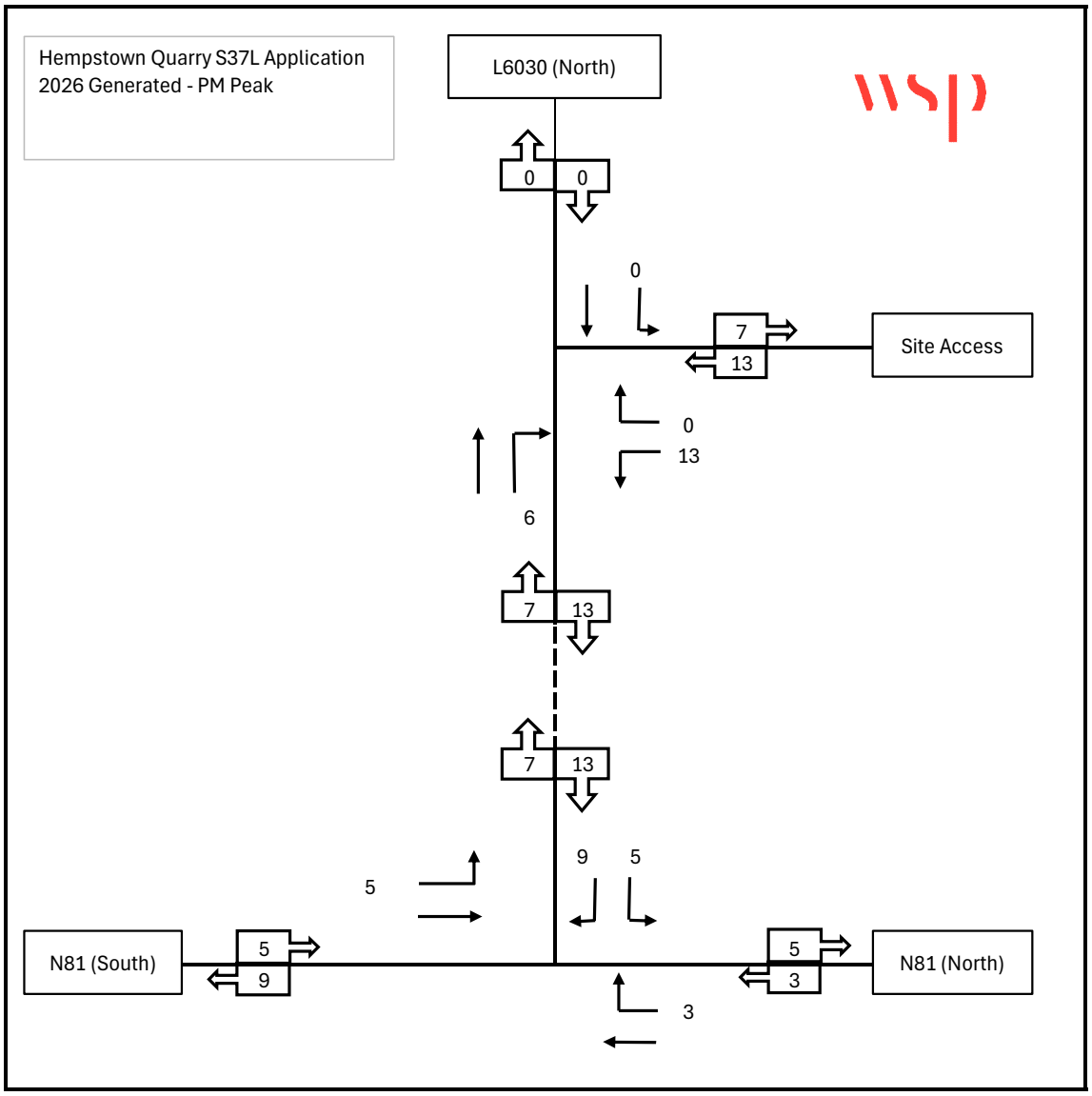

Hempstown Quarry S37L Application
2026 % flow increase on opening
AM Peak
Generated Traffic on Opening
Baseline Traffic on Opening
% increase in traffic
L6030 (North)
5
44
11%
18
24
75%
Site Access
15
60
25%
15
72
21%
6
779
0.8%
N81 (South)
8
789
1.0%
N81 (North)

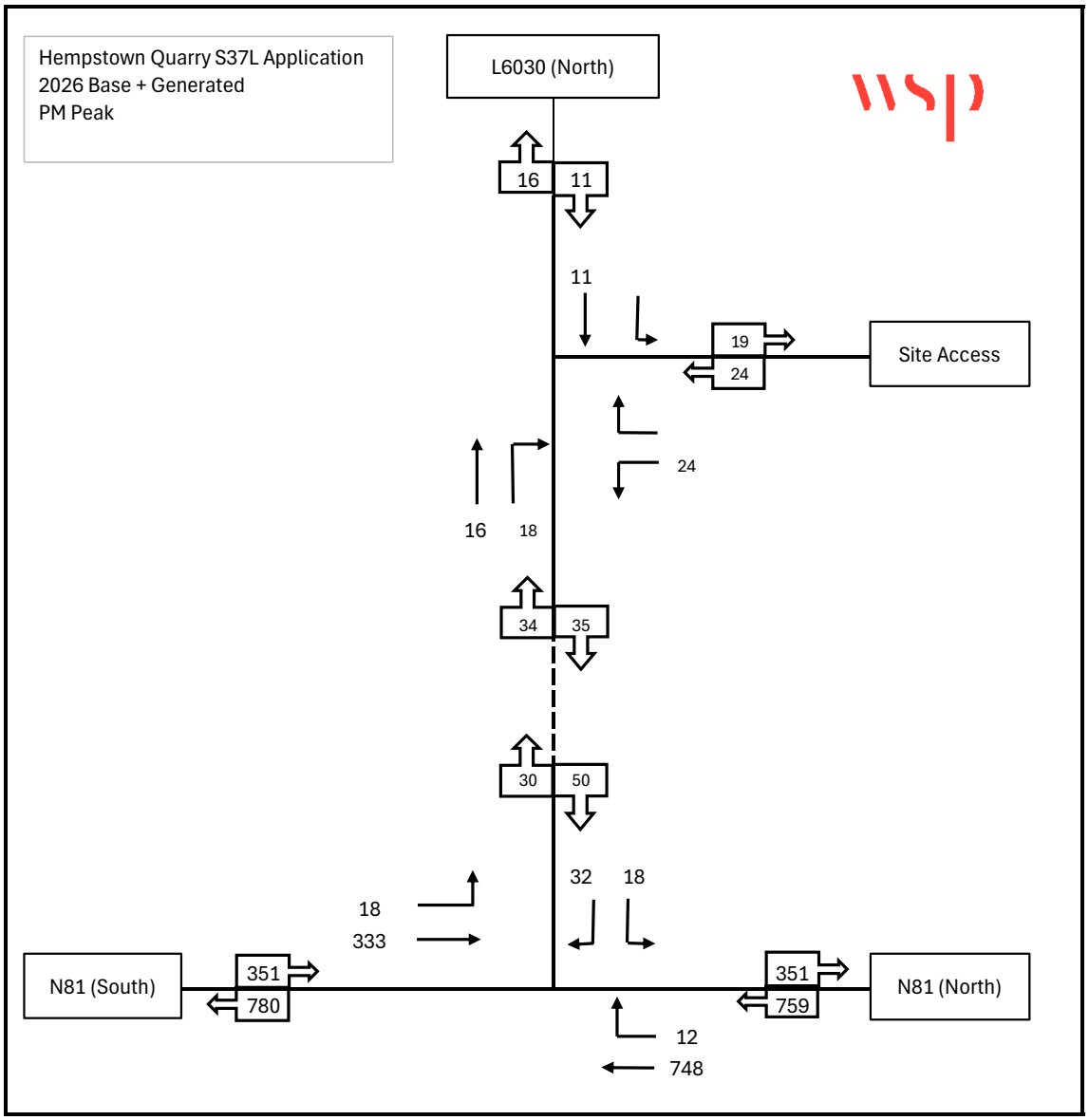

Hempstown Quarry S37L Application
2024 Existing - PM Peak
L6030 (North)
15
10
10
0
11
10
Site Access
0
10
15
11
26
20
20
34
22
12
12
320
N81 (South)
332
741
332
727
N81 (North)
8
719

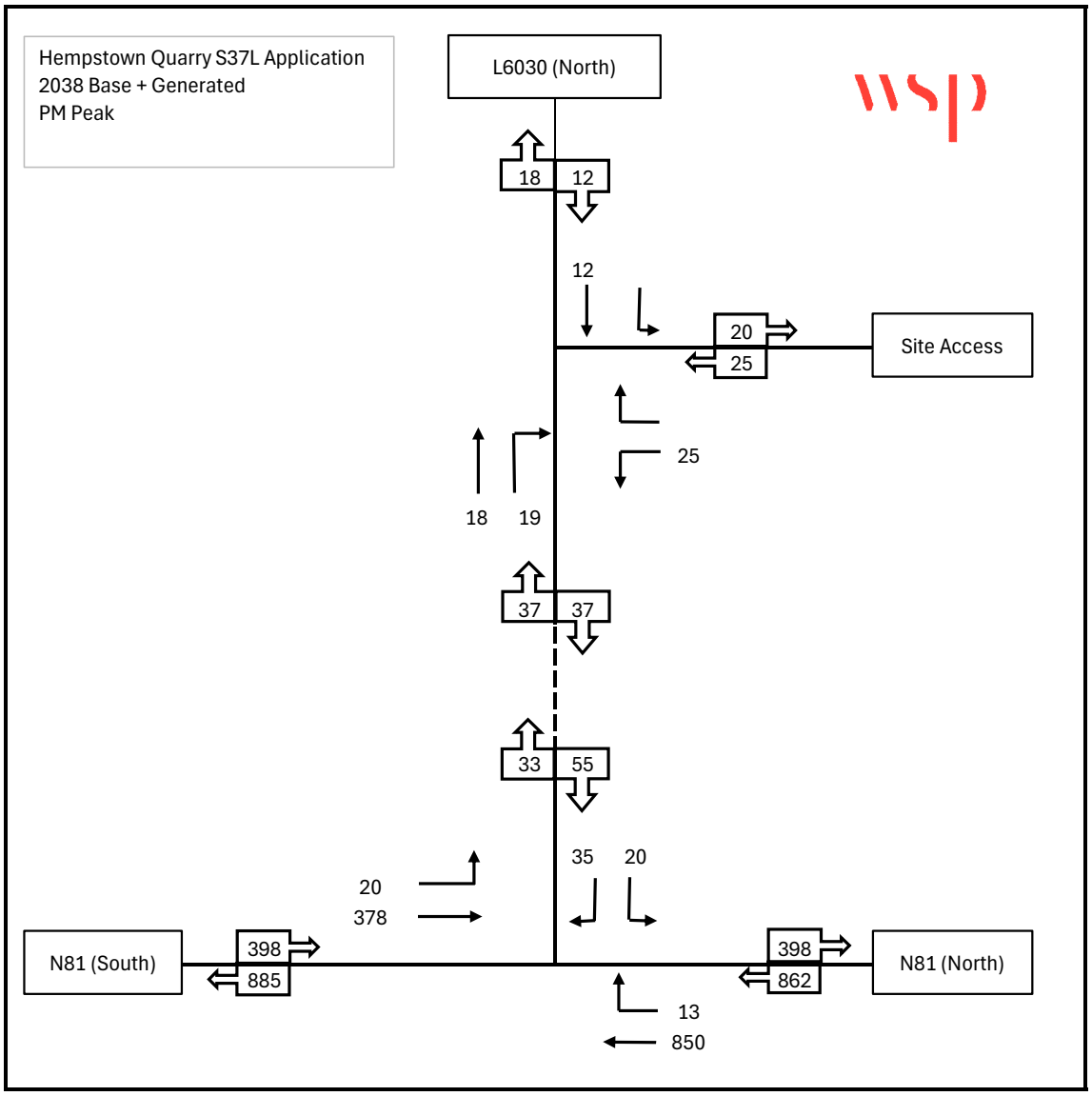

Hempstown Quarry S37L Application
2026 Base
PM Peak
L6030 (North)
16
11
11
12
11
Site Access
11
16
12
28
21
21
36
23
13
13
333
N81 (South)
346
771
346
756
N81 (North)
9
748

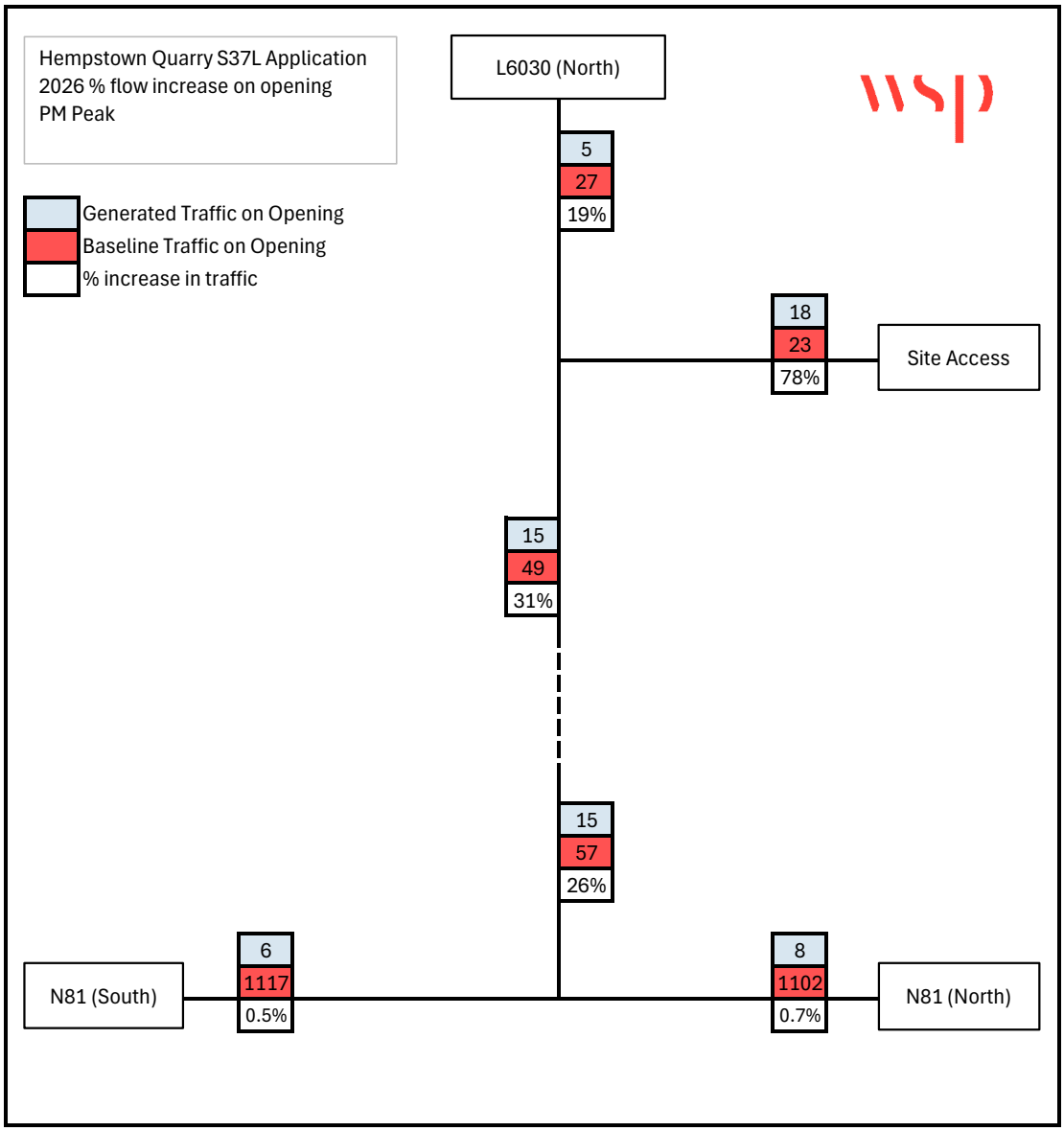

Hempstown Quarry S37L Application
2038 Base
PM Peak
L6030 (North)
18
12
12
13
12
Site Access
12
18
13
31
24
24
41
26
15
15
378
N81 (South)
393
876
393
859
N81 (North)
10
850


Hempstown Quarry S37L Application
2026 Generated Distribution
PM Peak
L6030 (North)
0
0
0%
100%
100%
Site Access
0%
100%
100%
100%
100%
100%
100%
100%
65%
35%
60%
N81 (South)
60%
65%
35%
40%
N81 (North)
40%


Hempstown Quarry S37L Application
2026 Generated - PM Peak
L6030 (North)
0
0
0
7
13
Site Access
0
13
6
7
13
7
13
9
5
5
N81 (South)
5
9
5
3
N81 (North)
3


Hempstown Quarry S37L Application
2026 Base + Generated
PM Peak
L6030 (North)
16
11
11
19
24
Site Access
24
16
18
34
35
30
50
32
18
18
333
N81 (South)
351
780
351
759
N81 (North)
12
748


Hempstown Quarry S37L Application
2038 Base + Generated
PM Peak
L6030 (North)
18
12
12
20
25
Site Access
25
18
19
37
37
33
55
35
20
20
378
N81 (South)
398
885
398
862
N81 (North)
13
850


Hempstown Quarry S37L Application
2026 % flow increase on opening
PM Peak
Generated Traffic on Opening
Baseline Traffic on Opening
% increase in traffic
L6030 (North)
5
27
19%
18
23
78%
Site Access
15
49
31%
15
57
26%
6
1117
0.5%
N81 (South)
8
1102
0.7%
N81 (North)

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: L6030-Site Access Junction ver1.j9
Path: C:\Users\kevin\Desktop\KH Chartered Engineers\KH Chartered Engineers - Docs\C. Jobs\WSP\S37L
Report generation date: 03/02/2025 11:11:34

»2026 Baseline, AM
»2038 Baseline, AM
»2026 Baseline + Generated, AM
»2038 Baseline + Generated, AM
»2024 Existing, PM
»2026 Baseline, PM
»2038 Baseline, PM
»2026 Baseline + Generated, PM
»2038 Baseline + Generated, PM

Summary of junction performance

	AM			PM		
	95% Queue (Veh)	Delay (s)	RFC	95% Queue (Veh)	Delay (s)	RFC
	2026 Baseline					
Stream B-AC	0.5	4.62	0.02	0.5	4.47	0.01
Stream C-AB	0.5	5.19	0.02	0.5	5.20	0.02
	2038 Baseline					
Stream B-AC	0.5	4.63	0.02	0.5	4.48	0.02
Stream C-AB	0.5	5.20	0.02	0.5	5.20	0.02
	2026 Baseline + Generated					
Stream B-AC	0.5	4.70	0.03	0.5	4.55	0.03
Stream C-AB	0.5	5.28	0.03	0.5	5.25	0.03
	2038 Baseline + Generated					
Stream B-AC	0.5	4.72	0.03	0.5	4.57	0.03
Stream C-AB	0.5	5.29	0.03	0.5	5.25	0.03
	2024 Existing					
Stream B-AC				0.5	4.47	0.01
Stream C-AB				0.5	5.19	0.02

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 average delay per arriving vehicle.

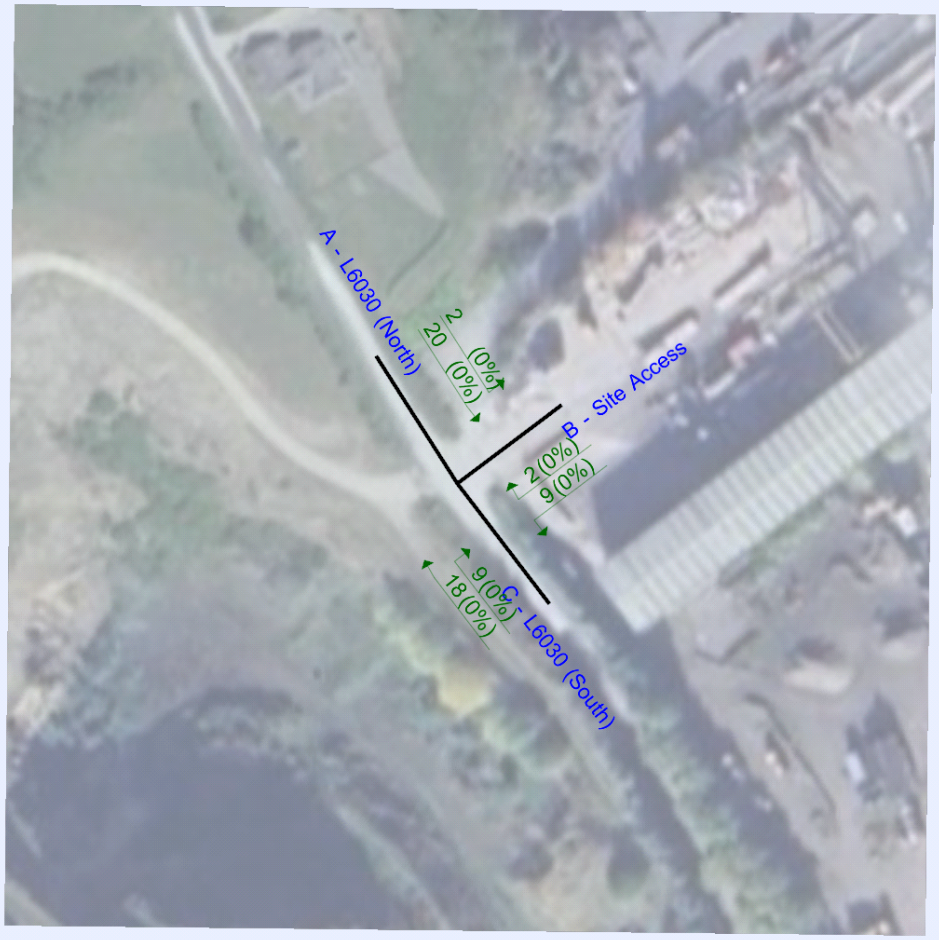
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	22/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ACER\Kevin
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓	✓		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D1	2024 Existing	AM	ONE HOUR	08:45	10:15	15	✓			
D2	2026 Baseline	AM	ONE HOUR	08:45	10:15	15	✓	✓	Simple	D1*1.03979
D3	2038 Baseline	AM	ONE HOUR	08:45	10:15	15	✓	✓	Simple	D1*1.18116
D4	2026 Generated	AM	ONE HOUR	08:45	10:15	15	✓			
D5	2026 Baseline + Generated	AM	ONE HOUR	08:45	10:15	15	✓	✓	Simple	D2+D4
D6	2038 Baseline + Generated	AM	ONE HOUR	08:45	10:15	15	✓	✓	Simple	D3+D4
D7	2024 Existing	PM	ONE HOUR	12:45	14:15	15	✓	✓		
D8	2026 Baseline	PM	ONE HOUR	12:45	14:15	15	✓	✓	Simple	D7*1.03979
D9	2038 Baseline	PM	ONE HOUR	12:45	14:15	15	✓	✓	Simple	D7*1.18116
D10	2026 Generated	PM	ONE HOUR	12:45	14:15	15	✓			
D11	2026 Baseline + Generated	PM	ONE HOUR	12:45	14:15	15	✓	✓	Simple	D8+D10
D12	2038 Baseline + Generated	PM	ONE HOUR	12:45	14:15	15	✓	✓	Simple	D9+D10

Analysis Set Details

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

2026 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - L6030 (South) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D2 - 2026 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	L6030-Site Access Junction	T-Junction	Two-way		✓	1.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	L6030 (North)		Major
B	Site Access		Minor
C	L6030 (South)		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 - L6030 (South)	5.66			215.0	✓	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 - Site Access	One lane	5.00	250	94

Geometric Delay Data for Priority Intersections

Arm	Entry speed (kph)	Exit speed (kph)	Entry radius from arm (m)	Exit radius into arm (m)	Stagger length (m)	Distance included upstream (m)	Distance included downstream (m)
A - L6030 (North)	60.00	60.00	4.31			252.87	252.87
B - Site Access	50.00	50.00	4.24	13.00		252.87	252.87
C - L6030 (South)	60.00	60.00				252.87	252.87

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	731	0.135	0.342	0.215	0.488
1	B-C	820	0.128	0.322	-	-
1	C-B	698	0.275	0.275	-	-

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)	Results for central hour only	Run automatically	Relationship type	Relationship
D2	2026 Baseline	AM	ONE HOUR	08:45	10:15	15	✓	✓	Simple	D1*1.03979

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - L6030 (North)		ONE HOUR	✓	23	100.000
B - Site Access		ONE HOUR	✓	11	100.000
C - L6030 (South)		ONE HOUR	✓	28	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	2	21
	B - Site Access	2	0	9
	C - L6030 (South)	19	9	0

Proportions

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.09	0.91
	B - Site Access	0.18	0.00	0.82
	C - L6030 (South)	0.67	0.33	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	0
	B - Site Access	0	0	0
	C - L6030 (South)	0	0	0

Average PCU Per Veh

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L6030 (South)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
08:45-09:00	A - L6030 (North)	17	17
	B - Site Access	9	9
	C - L6030 (South)	21	21
09:00-09:15	A - L6030 (North)	21	21
	B - Site Access	10	10
	C - L6030 (South)	25	25
09:15-09:30	A - L6030 (North)	25	25
	B - Site Access	13	13
	C - L6030 (South)	31	31
09:30-09:45	A - L6030 (North)	25	25
	B - Site Access	13	13
	C - L6030 (South)	31	31
09:45-10:00	A - L6030 (North)	21	21
	B - Site Access	10	10
	C - L6030 (South)	25	25
10:00-10:15	A - L6030 (North)	17	17
	B - Site Access	9	9
	C - L6030 (South)	21	21

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.02	4.62	0.0	0.5	A	11	11	0.87	4.58	0.01	1.20	4.58
C-AB	0.02	5.19	0.0	0.5	A	10	10	0.89	5.52	0.01	1.21	5.50
C-A						18	18					
A-B						2	2					
A-C						21	21					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	9.47	0.00
	B - Site Access	10.05	0.00	9.65
	C - L6030 (South)	0.00	7.18	0.00

Inclusive Geometric Delay (Veh-min) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.45	0.00
	B - Site Access	0.48	0.00	2.07
	C - L6030 (South)	0.00	1.54	0.00

Point to Point Journey Times Summary (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.00	0.00	47.61
	C - L6030 (South)	35.84	46.06	0.00

Main Results for each time segment

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	10	3	794	0.013	10	0.0	0.0	4.592	A
C-AB	9	2	703	0.012	9	0.0	0.0	5.182	A
C-A	17	4			17				
A-B	2	0.47			2				
A-C	19	5			19				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	792	0.016	13	0.0	0.0	4.616	A
C-AB	11	3	704	0.015	11	0.0	0.0	5.189	A
C-A	20	5			20				
A-B	2	0.57			2				
A-C	23	6			23				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	792	0.016	13	0.0	0.0	4.616	A
C-AB	11	3	704	0.015	11	0.0	0.0	5.191	A
C-A	20	5			20				
A-B	2	0.57			2				
A-C	23	6			23				

09:45 - 10:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	10	3	794	0.013	10	0.0	0.0	4.592	A
C-AB	9	2	703	0.012	9	0.0	0.0	5.184	A
C-A	17	4			17				
A-B	2	0.47			2				
A-C	19	5			19				

Queueing Delay Results for each time segment

09:00 - 09:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.19	0.01	4.592	A
C-AB	0.20	0.01	5.182	A

09:15 - 09:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.24	0.02	4.616	A
C-AB	0.24	0.02	5.189	A

09:30 - 09:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.24	0.02	4.616	A
C-AB	0.25	0.02	5.191	A

09:45 - 10:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.20	0.01	4.592	A
C-AB	0.20	0.01	5.184	A

Queue Variation Results for each time segment

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.01	0.01	0.25	0.45	0.48			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:45 - 10:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 09:00-09:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.42	0.03
C-AB	0.25	0.02
C-A	0.00	0.00
A-B	0.07	0.00
A-C	0.00	0.00

Geometric Delay results: 09:15-09:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.51	0.03
C-AB	0.31	0.02
C-A	0.00	0.00
A-B	0.09	0.01
A-C	0.00	0.00

Geometric Delay results: 09:30-09:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.51	0.03
C-AB	0.31	0.02
C-A	0.00	0.00
A-B	0.09	0.01
A-C	0.00	0.00

Geometric Delay results: 09:45-10:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.42	0.03
C-AB	0.25	0.02
C-A	0.00	0.00
A-B	0.07	0.00
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:00-09:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.07	0.00
	B - Site Access	0.08	0.00	0.34
	C - L6030 (South)	0.00	0.25	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:15-09:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.09	0.00
	B - Site Access	0.10	0.00	0.41
	C - L6030 (South)	0.00	0.31	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:30-09:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.09	0.00
	B - Site Access	0.10	0.00	0.41
	C - L6030 (South)	0.00	0.31	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:45-10:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.07	0.00
	B - Site Access	0.08	0.00	0.34
	C - L6030 (South)	0.00	0.25	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:00-09:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.02	0.00	47.62
	C - L6030 (South)	35.53	45.74	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:15-09:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.04	0.00	47.65
	C - L6030 (South)	35.53	45.75	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:30-09:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.04	0.00	47.65
	C - L6030 (South)	35.54	45.75	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:45-10:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.02	0.00	47.62
	C - L6030 (South)	35.53	45.75	0.00

2038 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - L6030 (South) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D3 - 2038 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	L6030-Site Access Junction	T-Junction	Two-way		✓	1.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D3	2038 Baseline	AM	ONE HOUR	08:45	10:15	15	✓	✓	Simple	D1*1.18116

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - L6030 (North)		ONE HOUR	✓	26	100.000
B - Site Access		ONE HOUR	✓	13	100.000
C - L6030 (South)		ONE HOUR	✓	32	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	2	24
	B - Site Access	2	0	11
	C - L6030 (South)	21	11	0

Proportions

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.09	0.91
	B - Site Access	0.18	0.00	0.82
	C - L6030 (South)	0.67	0.33	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	0
	B - Site Access	0	0	0
	C - L6030 (South)	0	0	0

Average PCU Per Veh

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L6030 (South)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
08:45-09:00	A - L6030 (North)	20	20
	B - Site Access	10	10
	C - L6030 (South)	24	24
09:00-09:15	A - L6030 (North)	23	23
	B - Site Access	12	12
	C - L6030 (South)	29	29
09:15-09:30	A - L6030 (North)	29	29
	B - Site Access	14	14
	C - L6030 (South)	35	35
09:30-09:45	A - L6030 (North)	29	29
	B - Site Access	14	14
	C - L6030 (South)	35	35
09:45-10:00	A - L6030 (North)	23	23
	B - Site Access	12	12
	C - L6030 (South)	29	29
10:00-10:15	A - L6030 (North)	20	20
	B - Site Access	10	10
	C - L6030 (South)	24	24

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.02	4.63	0.0	0.5	A	13	13	1.00	4.60	0.01	1.37	4.59
C-AB	0.02	5.20	0.0	0.5	A	11	11	1.02	5.56	0.01	1.39	5.53
C-A						21	21					
A-B						2	2					
A-C						24	24					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	9.47	0.00
	B - Site Access	10.05	0.00	9.65
	C - L6030 (South)	0.00	7.18	0.00

Inclusive Geometric Delay (Veh-min) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.51	0.00
	B - Site Access	0.54	0.00	2.35
	C - L6030 (South)	0.00	1.75	0.00

Point to Point Journey Times Summary (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.02	0.00	47.62
	C - L6030 (South)	35.88	46.09	0.00

Main Results for each time segment

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	12	3	793	0.015	12	0.0	0.0	4.606	A
C-AB	10	2	704	0.014	10	0.0	0.0	5.186	A
C-A	19	5			19				
A-B	2	0.53			2				
A-C	21	5			21				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	14	4	791	0.018	14	0.0	0.0	4.634	A
C-AB	12	3	705	0.017	12	0.0	0.0	5.194	A
C-A	23	6			23				
A-B	3	0.65			3				
A-C	26	7			26				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	14	4	791	0.018	14	0.0	0.0	4.634	A
C-AB	12	3	705	0.017	12	0.0	0.0	5.196	A
C-A	23	6			23				
A-B	3	0.65			3				
A-C	26	7			26				

09:45 - 10:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	12	3	793	0.015	12	0.0	0.0	4.606	A
C-AB	10	2	704	0.014	10	0.0	0.0	5.187	A
C-A	19	5			19				
A-B	2	0.53			2				
A-C	21	5			21				

Queueing Delay Results for each time segment

09:00 - 09:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.22	0.01	4.606	A
C-AB	0.23	0.02	5.186	A

09:15 - 09:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.27	0.02	4.634	A
C-AB	0.28	0.02	5.194	A

09:30 - 09:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.28	0.02	4.634	A
C-AB	0.28	0.02	5.196	A

09:45 - 10:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.23	0.02	4.606	A
C-AB	0.23	0.02	5.187	A

Queue Variation Results for each time segment

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.02	0.02	0.25	0.45	0.48			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

09:45 - 10:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 09:00-09:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.47	0.03
C-AB	0.29	0.02
C-A	0.00	0.00
A-B	0.08	0.01
A-C	0.00	0.00

Geometric Delay results: 09:15-09:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.58	0.04
C-AB	0.35	0.02
C-A	0.00	0.00
A-B	0.10	0.01
A-C	0.00	0.00

Geometric Delay results: 09:30-09:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.58	0.04
C-AB	0.35	0.02
C-A	0.00	0.00
A-B	0.10	0.01
A-C	0.00	0.00

Geometric Delay results: 09:45-10:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.47	0.03
C-AB	0.29	0.02
C-A	0.00	0.00
A-B	0.08	0.01
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:00-09:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.08	0.00
	B - Site Access	0.09	0.00	0.38
	C - L6030 (South)	0.00	0.29	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:15-09:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.10	0.00
	B - Site Access	0.11	0.00	0.47
	C - L6030 (South)	0.00	0.35	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:30-09:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.10	0.00
	B - Site Access	0.11	0.00	0.47
	C - L6030 (South)	0.00	0.35	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:45-10:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.08	0.00
	B - Site Access	0.09	0.00	0.38
	C - L6030 (South)	0.00	0.29	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:00-09:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.03	0.00	47.64
	C - L6030 (South)	35.53	45.75	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:15-09:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.06	0.00	47.67
	C - L6030 (South)	35.54	45.76	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:30-09:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.06	0.00	47.67
	C - L6030 (South)	35.54	45.76	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:45-10:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.03	0.00	47.64
	C - L6030 (South)	35.53	45.75	0.00

2026 Baseline + Generated, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - L6030 (South) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D5 - 2026 Baseline + Generated, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	L6030-Site Access Junction	T-Junction	Two-way		✓	2.33	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D5	2026 Baseline + Generated	AM	ONE HOUR	08:45	10:15	15	✓	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - L6030 (North)		ONE HOUR	✓	26	100.000
B - Site Access		ONE HOUR	✓	18	100.000
C - L6030 (South)		ONE HOUR	✓	38	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	5	21
	B - Site Access	4	0	14
	C - L6030 (South)	19	19	0

Proportions

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.20	0.80
	B - Site Access	0.22	0.00	0.78
	C - L6030 (South)	0.49	0.51	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	0
	B - Site Access	0	0	0
	C - L6030 (South)	0	0	0

Average PCU Per Veh

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L6030 (South)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
08:45-09:00	A - L6030 (North)	19	19
	B - Site Access	14	14
	C - L6030 (South)	29	29
09:00-09:15	A - L6030 (North)	23	23
	B - Site Access	17	17
	C - L6030 (South)	34	34
09:15-09:30	A - L6030 (North)	28	28
	B - Site Access	20	20
	C - L6030 (South)	42	42
09:30-09:45	A - L6030 (North)	28	28
	B - Site Access	20	20
	C - L6030 (South)	42	42
09:45-10:00	A - L6030 (North)	23	23
	B - Site Access	17	17
	C - L6030 (South)	34	34
10:00-10:15	A - L6030 (North)	19	19
	B - Site Access	14	14
	C - L6030 (South)	29	29

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.03	4.70	0.0	0.5	A	18	18	1.43	4.66	0.02	1.96	4.65
C-AB	0.03	5.28	0.0	0.5	A	20	20	1.83	5.53	0.02	2.51	5.50
C-A						18	18					
A-B						5	5					
A-C						21	21					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	9.47	0.00
	B - Site Access	10.05	0.00	9.65
	C - L6030 (South)	0.00	7.18	0.00

Inclusive Geometric Delay (Veh-min) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	1.10	0.00
	B - Site Access	0.94	0.00	3.18
	C - L6030 (South)	0.00	3.19	0.00

Point to Point Journey Times Summary (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.07	0.00	47.68
	C - L6030 (South)	35.84	46.06	0.00

Main Results for each time segment

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	17	4	789	0.021	17	0.0	0.0	4.663	A
C-AB	18	4	702	0.025	18	0.0	0.0	5.257	A
C-A	16	4			16				
A-B	5	1			5				
A-C	19	5			19				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	20	5	786	0.026	20	0.0	0.0	4.699	A
C-AB	22	5	703	0.031	22	0.0	0.0	5.282	A
C-A	20	5			20				
A-B	6	1			6				
A-C	23	6			23				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	20	5	786	0.026	20	0.0	0.0	4.699	A
C-AB	22	5	703	0.031	22	0.0	0.0	5.282	A
C-A	20	5			20				
A-B	6	1			6				
A-C	23	6			23				

09:45 - 10:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	17	4	789	0.021	17	0.0	0.0	4.663	A
C-AB	18	4	702	0.025	18	0.0	0.0	5.258	A
C-A	16	4			16				
A-B	5	1			5				
A-C	19	5			19				

Queueing Delay Results for each time segment

09:00 - 09:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.32	0.02	4.663	A
C-AB	0.41	0.03	5.257	A

09:15 - 09:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.39	0.03	4.699	A
C-AB	0.51	0.03	5.282	A

09:30 - 09:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.40	0.03	4.699	A
C-AB	0.51	0.03	5.282	A

09:45 - 10:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.33	0.02	4.663	A
C-AB	0.41	0.03	5.258	A

Queue Variation Results for each time segment

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
C-AB	0.03	0.03	0.25	0.45	0.48			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

09:45 - 10:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 09:00-09:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.67	0.04
C-AB	0.52	0.03
C-A	0.00	0.00
A-B	0.18	0.01
A-C	0.00	0.00

Geometric Delay results: 09:15-09:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.82	0.05
C-AB	0.64	0.04
C-A	0.00	0.00
A-B	0.22	0.01
A-C	0.00	0.00

Geometric Delay results: 09:30-09:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.82	0.05
C-AB	0.64	0.04
C-A	0.00	0.00
A-B	0.22	0.01
A-C	0.00	0.00

Geometric Delay results: 09:45-10:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.67	0.04
C-AB	0.52	0.03
C-A	0.00	0.00
A-B	0.18	0.01
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:00-09:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.18	0.00
	B - Site Access	0.15	0.00	0.52
	C - L6030 (South)	0.00	0.52	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:15-09:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.22	0.00
	B - Site Access	0.19	0.00	0.64
	C - L6030 (South)	0.00	0.64	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:30-09:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.22	0.00
	B - Site Access	0.19	0.00	0.64
	C - L6030 (South)	0.00	0.64	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:45-10:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.18	0.00
	B - Site Access	0.15	0.00	0.52
	C - L6030 (South)	0.00	0.52	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:00-09:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.09	0.00	47.69
	C - L6030 (South)	35.60	45.82	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:15-09:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.12	0.00	47.73
	C - L6030 (South)	35.63	45.84	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:30-09:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.12	0.00	47.73
	C - L6030 (South)	35.63	45.84	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:45-10:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.09	0.00	47.69
	C - L6030 (South)	35.60	45.82	0.00

2038 Baseline + Generated, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - L6030 (South) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D6 - 2038 Baseline + Generated, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	L6030-Site Access Junction	T-Junction	Two-way		✓	2.28	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D6	2038 Baseline + Generated	AM	ONE HOUR	08:45	10:15	15	✓	✓	Simple	D3+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - L6030 (North)		ONE HOUR	✓	29	100.000
B - Site Access		ONE HOUR	✓	20	100.000
C - L6030 (South)		ONE HOUR	✓	42	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	5	24
	B - Site Access	4	0	16
	C - L6030 (South)	21	21	0

Proportions

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.18	0.82
	B - Site Access	0.22	0.00	0.78
	C - L6030 (South)	0.51	0.49	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	0
	B - Site Access	0	0	0
	C - L6030 (South)	0	0	0

Average PCU Per Veh

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L6030 (South)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
08:45-09:00	A - L6030 (North)	22	22
	B - Site Access	15	15
	C - L6030 (South)	32	32
09:00-09:15	A - L6030 (North)	26	26
	B - Site Access	18	18
	C - L6030 (South)	38	38
09:15-09:30	A - L6030 (North)	32	32
	B - Site Access	22	22
	C - L6030 (South)	46	46
09:30-09:45	A - L6030 (North)	32	32
	B - Site Access	22	22
	C - L6030 (South)	46	46
09:45-10:00	A - L6030 (North)	26	26
	B - Site Access	18	18
	C - L6030 (South)	38	38
10:00-10:15	A - L6030 (North)	22	22
	B - Site Access	15	15
	C - L6030 (South)	32	32

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.03	4.72	0.0	0.5	A	20	20	1.56	4.67	0.02	2.14	4.66
C-AB	0.03	5.29	0.0	0.5	A	21	21	1.97	5.56	0.02	2.70	5.53
C-A						21	21					
A-B						5	5					
A-C						24	24					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	9.47	0.00
	B - Site Access	10.05	0.00	9.65
	C - L6030 (South)	0.00	7.18	0.00

Inclusive Geometric Delay (Veh-min) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	1.17	0.00
	B - Site Access	1.01	0.00	3.46
	C - L6030 (South)	0.00	3.40	0.00

Point to Point Journey Times Summary (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.08	0.00	47.69
	C - L6030 (South)	35.88	46.09	0.00

Main Results for each time segment

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	18	4	788	0.023	18	0.0	0.0	4.676	A
C-AB	19	5	703	0.027	19	0.0	0.0	5.262	A
C-A	19	5			19				
A-B	5	1			5				
A-C	21	5			21				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	22	6	785	0.028	22	0.0	0.0	4.716	A
C-AB	23	6	704	0.033	23	0.0	0.0	5.288	A
C-A	23	6			23				
A-B	6	1			6				
A-C	26	7			26				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	22	6	785	0.028	22	0.0	0.0	4.716	A
C-AB	24	6	704	0.033	23	0.0	0.0	5.290	A
C-A	23	6			23				
A-B	6	1			6				
A-C	26	7			26				

09:45 - 10:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	18	4	788	0.023	18	0.0	0.0	4.678	A
C-AB	19	5	703	0.027	19	0.0	0.0	5.262	A
C-A	19	5			19				
A-B	5	1			5				
A-C	21	5			21				

Queueing Delay Results for each time segment

09:00 - 09:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.34	0.02	4.676	A
C-AB	0.44	0.03	5.262	A

09:15 - 09:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.42	0.03	4.716	A
C-AB	0.55	0.04	5.288	A

09:30 - 09:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.43	0.03	4.716	A
C-AB	0.55	0.04	5.290	A

09:45 - 10:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.36	0.02	4.678	A
C-AB	0.44	0.03	5.262	A

Queue Variation Results for each time segment

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
C-AB	0.03	0.03	0.25	0.45	0.48			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.04	0.03	0.25	0.45	0.48			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.04	0.00	0.00	0.04	0.04			N/A	N/A

09:45 - 10:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 09:00-09:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.73	0.05
C-AB	0.55	0.04
C-A	0.00	0.00
A-B	0.19	0.01
A-C	0.00	0.00

Geometric Delay results: 09:15-09:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.89	0.06
C-AB	0.68	0.05
C-A	0.00	0.00
A-B	0.23	0.02
A-C	0.00	0.00

Geometric Delay results: 09:30-09:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.89	0.06
C-AB	0.68	0.05
C-A	0.00	0.00
A-B	0.23	0.02
A-C	0.00	0.00

Geometric Delay results: 09:45-10:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.73	0.05
C-AB	0.56	0.04
C-A	0.00	0.00
A-B	0.19	0.01
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:00-09:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.19	0.00
	B - Site Access	0.16	0.00	0.56
	C - L6030 (South)	0.00	0.55	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:15-09:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.23	0.00
	B - Site Access	0.20	0.00	0.69
	C - L6030 (South)	0.00	0.68	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:30-09:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.23	0.00
	B - Site Access	0.20	0.00	0.69
	C - L6030 (South)	0.00	0.68	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 09:45-10:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.19	0.00
	B - Site Access	0.16	0.00	0.57
	C - L6030 (South)	0.00	0.56	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:00-09:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.10	0.00	47.71
	C - L6030 (South)	35.61	45.82	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:15-09:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.14	0.00	47.75
	C - L6030 (South)	35.63	45.85	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:30-09:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.14	0.00	47.75
	C - L6030 (South)	35.63	45.85	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 09:45-10:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	48.10	0.00	47.71
	C - L6030 (South)	35.61	45.82	0.00

2024 Existing, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - L6030 (South) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D7 - 2024 Existing, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	L6030-Site Access Junction	T-Junction	Two-way		✓	2.24	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)	Results for central hour only	Run automatically
D7	2024 Existing	PM	ONE HOUR	12:45	14:15	15	✓	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - L6030 (North)		ONE HOUR	✓	10	100.000
B - Site Access		ONE HOUR	✓	10	100.000
C - L6030 (South)		ONE HOUR	✓	26	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	10
	B - Site Access	0	0	10
	C - L6030 (South)	15	11	0

Proportions

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L6030 (South)	0.58	0.42	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	0
	B - Site Access	0	0	0
	C - L6030 (South)	0	0	0

Average PCU Per Veh

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L6030 (South)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
12:45-13:00	A - L6030 (North)	8	8
	B - Site Access	8	8
	C - L6030 (South)	20	20
13:00-13:15	A - L6030 (North)	9	9
	B - Site Access	9	9
	C - L6030 (South)	23	23
13:15-13:30	A - L6030 (North)	11	11
	B - Site Access	11	11
	C - L6030 (South)	29	29
13:30-13:45	A - L6030 (North)	11	11
	B - Site Access	11	11
	C - L6030 (South)	29	29
13:45-14:00	A - L6030 (North)	9	9
	B - Site Access	9	9
	C - L6030 (South)	23	23
14:00-14:15	A - L6030 (North)	8	8
	B - Site Access	8	8
	C - L6030 (South)	20	20

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.01	4.47	0.0	0.5	A	10	10	0.74	4.44	0.01	1.02	4.44
C-AB	0.02	5.19	0.0	0.5	A	11	11	1.02	5.44	0.01	1.40	5.42
C-A						15	15					
A-B						0	0					
A-C						10	10					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	9.47	0.00
	B - Site Access	10.05	0.00	9.65
	C - L6030 (South)	0.00	7.18	0.00

Inclusive Geometric Delay (Veh-min) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	2.21
	C - L6030 (South)	0.00	1.81	0.00

Point to Point Journey Times Summary (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.86	0.00	47.47
	C - L6030 (South)	35.76	45.98	0.00

Main Results for each time segment

13:00 - 13:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	817	0.011	9	0.0	0.0	4.455	A
C-AB	10	3	704	0.014	10	0.0	0.0	5.185	A
C-A	13	3			13				
A-B	0	0			0				
A-C	9	2			9				

13:15 - 13:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	816	0.013	11	0.0	0.0	4.469	A
C-AB	12	3	706	0.018	12	0.0	0.0	5.192	A
C-A	16	4			16				
A-B	0	0			0				
A-C	11	3			11				

13:30 - 13:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	816	0.013	11	0.0	0.0	4.469	A
C-AB	12	3	706	0.018	12	0.0	0.0	5.192	A
C-A	16	4			16				
A-B	0	0			0				
A-C	11	3			11				

13:45 - 14:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	817	0.011	9	0.0	0.0	4.455	A
C-AB	10	3	704	0.014	10	0.0	0.0	5.187	A
C-A	13	3			13				
A-B	0	0			0				
A-C	9	2			9				

Queueing Delay Results for each time segment

13:00 - 13:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.16	0.01	4.455	A
C-AB	0.23	0.02	5.185	A

13:15 - 13:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.20	0.01	4.469	A
C-AB	0.28	0.02	5.192	A

13:30 - 13:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.21	0.01	4.469	A
C-AB	0.28	0.02	5.192	A

13:45 - 14:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.17	0.01	4.455	A
C-AB	0.23	0.02	5.187	A

Queue Variation Results for each time segment

13:00 - 13:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.02	0.02	0.25	0.45	0.48			N/A	N/A

13:15 - 13:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

13:30 - 13:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

13:45 - 14:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 13:00-13:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.36	0.02
C-AB	0.30	0.02
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:15-13:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.44	0.03
C-AB	0.36	0.02
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:30-13:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.44	0.03
C-AB	0.36	0.02
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:45-14:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.36	0.02
C-AB	0.30	0.02
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:00-13:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.36
	C - L6030 (South)	0.00	0.30	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:15-13:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.44
	C - L6030 (South)	0.00	0.36	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:30-13:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.44
	C - L6030 (South)	0.00	0.36	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:45-14:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.36
	C - L6030 (South)	0.00	0.30	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:00-13:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.88	0.00	47.49
	C - L6030 (South)	35.53	45.75	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:15-13:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.89	0.00	47.50
	C - L6030 (South)	35.54	45.75	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:30-13:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.89	0.00	47.50
	C - L6030 (South)	35.54	45.75	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:45-14:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.88	0.00	47.49
	C - L6030 (South)	35.53	45.75	0.00

2026 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - L6030 (South) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D8 - 2026 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	L6030-Site Access Junction	T-Junction	Two-way		✓	2.24	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D8	2026 Baseline	PM	ONE HOUR	12:45	14:15	15	✓	✓	Simple	D7*1.03979

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - L6030 (North)		ONE HOUR	✓	10	100.000
B - Site Access		ONE HOUR	✓	10	100.000
C - L6030 (South)		ONE HOUR	✓	27	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	10
	B - Site Access	0	0	10
	C - L6030 (South)	16	11	0

Proportions

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L6030 (South)	0.58	0.42	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	0
	B - Site Access	0	0	0
	C - L6030 (South)	0	0	0

Average PCU Per Veh

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L6030 (South)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
12:45-13:00	A - L6030 (North)	8	8
	B - Site Access	8	8
	C - L6030 (South)	20	20
13:00-13:15	A - L6030 (North)	9	9
	B - Site Access	9	9
	C - L6030 (South)	24	24
13:15-13:30	A - L6030 (North)	11	11
	B - Site Access	11	11
	C - L6030 (South)	30	30
13:30-13:45	A - L6030 (North)	11	11
	B - Site Access	11	11
	C - L6030 (South)	30	30
13:45-14:00	A - L6030 (North)	9	9
	B - Site Access	9	9
	C - L6030 (South)	24	24
14:00-14:15	A - L6030 (North)	8	8
	B - Site Access	8	8
	C - L6030 (South)	20	20

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.01	4.47	0.0	0.5	A	10	10	0.77	4.45	0.01	1.06	4.44
C-AB	0.02	5.20	0.0	0.5	A	12	12	1.06	5.45	0.01	1.45	5.43
C-A						15	15					
A-B						0	0					
A-C						10	10					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	9.47	0.00
	B - Site Access	10.05	0.00	9.65
	C - L6030 (South)	0.00	7.18	0.00

Inclusive Geometric Delay (Veh-min) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	2.30
	C - L6030 (South)	0.00	1.88	0.00

Point to Point Journey Times Summary (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.87	0.00	47.47
	C - L6030 (South)	35.77	45.99	0.00

Main Results for each time segment

13:00 - 13:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	817	0.011	9	0.0	0.0	4.457	A
C-AB	10	3	705	0.015	10	0.0	0.0	5.186	A
C-A	14	3			14				
A-B	0	0			0				
A-C	9	2			9				

13:15 - 13:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	816	0.014	11	0.0	0.0	4.473	A
C-AB	13	3	706	0.018	13	0.0	0.0	5.194	A
C-A	17	4			17				
A-B	0	0			0				
A-C	11	3			11				

13:30 - 13:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	816	0.014	11	0.0	0.0	4.473	A
C-AB	13	3	706	0.018	13	0.0	0.0	5.196	A
C-A	17	4			17				
A-B	0	0			0				
A-C	11	3			11				

13:45 - 14:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	817	0.011	9	0.0	0.0	4.459	A
C-AB	10	3	705	0.015	11	0.0	0.0	5.186	A
C-A	14	3			14				
A-B	0	0			0				
A-C	9	2			9				

Queueing Delay Results for each time segment

13:00 - 13:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.17	0.01	4.457	A
C-AB	0.24	0.02	5.186	A

13:15 - 13:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.21	0.01	4.473	A
C-AB	0.29	0.02	5.194	A

13:30 - 13:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.21	0.01	4.473	A
C-AB	0.29	0.02	5.196	A

13:45 - 14:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.18	0.01	4.459	A
C-AB	0.24	0.02	5.186	A

Queue Variation Results for each time segment

13:00 - 13:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.02	0.02	0.25	0.45	0.48			N/A	N/A

13:15 - 13:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

13:30 - 13:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

13:45 - 14:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 13:00-13:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.38	0.03
C-AB	0.31	0.02
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:15-13:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.46	0.03
C-AB	0.38	0.03
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:30-13:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.46	0.03
C-AB	0.38	0.03
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:45-14:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.38	0.03
C-AB	0.31	0.02
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:00-13:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.38
	C - L6030 (South)	0.00	0.31	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:15-13:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.46
	C - L6030 (South)	0.00	0.38	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:30-13:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.46
	C - L6030 (South)	0.00	0.38	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:45-14:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.38
	C - L6030 (South)	0.00	0.31	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:00-13:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.88	0.00	47.49
	C - L6030 (South)	35.53	45.75	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:15-13:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.90	0.00	47.50
	C - L6030 (South)	35.54	45.76	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:30-13:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.90	0.00	47.50
	C - L6030 (South)	35.54	45.76	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:45-14:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.88	0.00	47.49
	C - L6030 (South)	35.53	45.75	0.00

2038 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - L6030 (South) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D9 - 2038 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	L6030-Site Access Junction	T-Junction	Two-way		✓	2.25	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D9	2038 Baseline	PM	ONE HOUR	12:45	14:15	15	✓	✓	Simple	D7*1.18116

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - L6030 (North)		ONE HOUR	✓	12	100.000
B - Site Access		ONE HOUR	✓	12	100.000
C - L6030 (South)		ONE HOUR	✓	31	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	12
	B - Site Access	0	0	12
	C - L6030 (South)	18	13	0

Proportions

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L6030 (South)	0.58	0.42	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	0
	B - Site Access	0	0	0
	C - L6030 (South)	0	0	0

Average PCU Per Veh

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L6030 (South)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
12:45-13:00	A - L6030 (North)	9	9
	B - Site Access	9	9
	C - L6030 (South)	23	23
13:00-13:15	A - L6030 (North)	11	11
	B - Site Access	11	11
	C - L6030 (South)	28	28
13:15-13:30	A - L6030 (North)	13	13
	B - Site Access	13	13
	C - L6030 (South)	34	34
13:30-13:45	A - L6030 (North)	13	13
	B - Site Access	13	13
	C - L6030 (South)	34	34
13:45-14:00	A - L6030 (North)	11	11
	B - Site Access	11	11
	C - L6030 (South)	28	28
14:00-14:15	A - L6030 (North)	9	9
	B - Site Access	9	9
	C - L6030 (South)	23	23

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.02	4.48	0.0	0.5	A	12	12	0.88	4.46	0.01	1.21	4.45
C-AB	0.02	5.20	0.0	0.5	A	13	13	1.22	5.47	0.01	1.66	5.45
C-A						17	17					
A-B						0	0					
A-C						12	12					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	9.47	0.00
	B - Site Access	10.05	0.00	9.65
	C - L6030 (South)	0.00	7.18	0.00

Inclusive Geometric Delay (Veh-min) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	2.62
	C - L6030 (South)	0.00	2.14	0.00

Point to Point Journey Times Summary (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.88	0.00	47.48
	C - L6030 (South)	35.80	46.01	0.00

Main Results for each time segment

13:00 - 13:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	816	0.013	11	0.0	0.0	4.466	A
C-AB	12	3	705	0.017	12	0.0	0.0	5.191	A
C-A	16	4			16				
A-B	0	0			0				
A-C	11	3			11				

13:15 - 13:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	816	0.016	13	0.0	0.0	4.484	A
C-AB	15	4	707	0.021	15	0.0	0.0	5.200	A
C-A	19	5			19				
A-B	0	0			0				
A-C	13	3			13				

13:30 - 13:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	816	0.016	13	0.0	0.0	4.484	A
C-AB	15	4	707	0.021	15	0.0	0.0	5.202	A
C-A	19	5			19				
A-B	0	0			0				
A-C	13	3			13				

13:45 - 14:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	816	0.013	11	0.0	0.0	4.467	A
C-AB	12	3	705	0.017	12	0.0	0.0	5.191	A
C-A	16	4			16				
A-B	0	0			0				
A-C	11	3			11				

Queueing Delay Results for each time segment

13:00 - 13:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.19	0.01	4.466	A
C-AB	0.27	0.02	5.191	A

13:15 - 13:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.24	0.02	4.484	A
C-AB	0.34	0.02	5.200	A

13:30 - 13:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.24	0.02	4.484	A
C-AB	0.34	0.02	5.202	A

13:45 - 14:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.20	0.01	4.467	A
C-AB	0.27	0.02	5.191	A

Queue Variation Results for each time segment

13:00 - 13:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.02	0.02	0.25	0.45	0.48			N/A	N/A

13:15 - 13:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

13:30 - 13:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

13:45 - 14:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 13:00-13:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.43	0.03
C-AB	0.35	0.02
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:15-13:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.52	0.03
C-AB	0.43	0.03
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:30-13:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.52	0.03
C-AB	0.43	0.03
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:45-14:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.43	0.03
C-AB	0.35	0.02
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:00-13:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.43
	C - L6030 (South)	0.00	0.35	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:15-13:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.52
	C - L6030 (South)	0.00	0.43	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:30-13:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.52
	C - L6030 (South)	0.00	0.43	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:45-14:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.43
	C - L6030 (South)	0.00	0.35	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:00-13:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.89	0.00	47.50
	C - L6030 (South)	35.54	45.75	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:15-13:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.91	0.00	47.52
	C - L6030 (South)	35.54	45.76	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:30-13:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.91	0.00	47.52
	C - L6030 (South)	35.55	45.76	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:45-14:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.89	0.00	47.50
	C - L6030 (South)	35.54	45.75	0.00

2026 Baseline + Generated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - L6030 (South) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D11 - 2026 Baseline + Generated, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	L6030-Site Access Junction	T-Junction	Two-way		✓	2.99	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D11	2026 Baseline + Generated	PM	ONE HOUR	12:45	14:15	15	✓	✓	Simple	D8+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - L6030 (North)		ONE HOUR	✓	10	100.000
B - Site Access		ONE HOUR	✓	23	100.000
C - L6030 (South)		ONE HOUR	✓	33	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	10
	B - Site Access	0	0	23
	C - L6030 (South)	16	17	0

Proportions

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L6030 (South)	0.47	0.53	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	0
	B - Site Access	0	0	0
	C - L6030 (South)	0	0	0

Average PCU Per Veh

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L6030 (South)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
12:45-13:00	A - L6030 (North)	8	8
	B - Site Access	18	18
	C - L6030 (South)	25	25
13:00-13:15	A - L6030 (North)	9	9
	B - Site Access	21	21
	C - L6030 (South)	30	30
13:15-13:30	A - L6030 (North)	11	11
	B - Site Access	26	26
	C - L6030 (South)	36	36
13:30-13:45	A - L6030 (North)	11	11
	B - Site Access	26	26
	C - L6030 (South)	36	36
13:45-14:00	A - L6030 (North)	9	9
	B - Site Access	21	21
	C - L6030 (South)	30	30
14:00-14:15	A - L6030 (North)	8	8
	B - Site Access	18	18
	C - L6030 (South)	25	25

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.03	4.55	0.0	0.5	A	23	23	1.76	4.51	0.02	2.42	4.51
C-AB	0.03	5.25	0.0	0.5	A	18	18	1.62	5.45	0.02	2.22	5.43
C-A						15	15					
A-B						0	0					
A-C						10	10					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	9.47	0.00
	B - Site Access	10.05	0.00	9.65
	C - L6030 (South)	0.00	7.18	0.00

Inclusive Geometric Delay (Veh-min) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	5.18
	C - L6030 (South)	0.00	2.87	0.00

Point to Point Journey Times Summary (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.93	0.00	47.54
	C - L6030 (South)	35.78	45.99	0.00

Main Results for each time segment

13:00 - 13:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	21	5	817	0.026	21	0.0	0.0	4.523	A
C-AB	16	4	705	0.023	16	0.0	0.0	5.228	A
C-A	14	3			14				
A-B	0	0			0				
A-C	9	2			9				

13:15 - 13:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	26	6	816	0.032	26	0.0	0.0	4.554	A
C-AB	20	5	706	0.028	20	0.0	0.0	5.245	A
C-A	17	4			17				
A-B	0	0			0				
A-C	11	3			11				

13:30 - 13:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	26	6	816	0.032	26	0.0	0.0	4.554	A
C-AB	20	5	706	0.028	20	0.0	0.0	5.245	A
C-A	17	4			17				
A-B	0	0			0				
A-C	11	3			11				

13:45 - 14:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	21	5	817	0.026	21	0.0	0.0	4.523	A
C-AB	16	4	705	0.023	16	0.0	0.0	5.228	A
C-A	14	3			14				
A-B	0	0			0				
A-C	9	2			9				

Queueing Delay Results for each time segment

13:00 - 13:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.39	0.03	4.523	A
C-AB	0.36	0.02	5.228	A

13:15 - 13:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.48	0.03	4.554	A
C-AB	0.45	0.03	5.245	A

13:30 - 13:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.49	0.03	4.554	A
C-AB	0.45	0.03	5.245	A

13:45 - 14:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.40	0.03	4.523	A
C-AB	0.36	0.02	5.228	A

Queue Variation Results for each time segment

13:00 - 13:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.02	0.02	0.25	0.45	0.48			N/A	N/A

13:15 - 13:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

13:30 - 13:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

13:45 - 14:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 13:00-13:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.85	0.06
C-AB	0.47	0.03
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:15-13:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.04	0.07
C-AB	0.57	0.04
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:30-13:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.04	0.07
C-AB	0.57	0.04
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:45-14:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.85	0.06
C-AB	0.47	0.03
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:00-13:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.85
	C - L6030 (South)	0.00	0.47	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:15-13:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	1.04
	C - L6030 (South)	0.00	0.57	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:30-13:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	1.04
	C - L6030 (South)	0.00	0.57	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:45-14:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.85
	C - L6030 (South)	0.00	0.47	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:00-13:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.95	0.00	47.55
	C - L6030 (South)	35.57	45.79	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:15-13:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.98	0.00	47.58
	C - L6030 (South)	35.59	45.81	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:30-13:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.98	0.00	47.58
	C - L6030 (South)	35.59	45.81	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:45-14:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.95	0.00	47.55
	C - L6030 (South)	35.57	45.79	0.00

2038 Baseline + Generated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - L6030 (South) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Demand Sets	D12 - 2038 Baseline + Generated, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	L6030-Site Access Junction	T-Junction	Two-way		✓	2.94	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D12	2038 Baseline + Generated	PM	ONE HOUR	12:45	14:15	15	✓	✓	Simple	D9+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - L6030 (North)		ONE HOUR	✓	12	100.000
B - Site Access		ONE HOUR	✓	25	100.000
C - L6030 (South)		ONE HOUR	✓	37	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	12
	B - Site Access	0	0	25
	C - L6030 (South)	18	19	0

Proportions

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L6030 (South)	0.48	0.52	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0	0	0
	B - Site Access	0	0	0
	C - L6030 (South)	0	0	0

Average PCU Per Veh

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L6030 (South)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
12:45-13:00	A - L6030 (North)	9	9
	B - Site Access	19	19
	C - L6030 (South)	28	28
13:00-13:15	A - L6030 (North)	11	11
	B - Site Access	22	22
	C - L6030 (South)	33	33
13:15-13:30	A - L6030 (North)	13	13
	B - Site Access	27	27
	C - L6030 (South)	40	40
13:30-13:45	A - L6030 (North)	13	13
	B - Site Access	27	27
	C - L6030 (South)	40	40
13:45-14:00	A - L6030 (North)	11	11
	B - Site Access	22	22
	C - L6030 (South)	33	33
14:00-14:15	A - L6030 (North)	9	9
	B - Site Access	19	19
	C - L6030 (South)	28	28

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.03	4.57	0.0	0.5	A	25	25	1.87	4.52	0.02	2.57	4.52
C-AB	0.03	5.25	0.0	0.5	A	19	19	1.78	5.48	0.02	2.44	5.46
C-A						17	17					
A-B						0	0					
A-C						12	12					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	9.47	0.00
	B - Site Access	10.05	0.00	9.65
	C - L6030 (South)	0.00	7.18	0.00

Inclusive Geometric Delay (Veh-min) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	5.49
	C - L6030 (South)	0.00	3.13	0.00

Point to Point Journey Times Summary (s) - 1 - L6030-Site Access Junction

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.94	0.00	47.55
	C - L6030 (South)	35.80	46.02	0.00

Main Results for each time segment

13:00 - 13:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	22	6	816	0.027	22	0.0	0.0	4.532	A
C-AB	17	4	705	0.025	17	0.0	0.0	5.233	A
C-A	16	4			16				
A-B	0	0			0				
A-C	11	3			11				

13:15 - 13:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	816	0.033	27	0.0	0.0	4.565	A
C-AB	22	5	707	0.030	21	0.0	0.0	5.252	A
C-A	19	5			19				
A-B	0	0			0				
A-C	13	3			13				

13:30 - 13:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	816	0.033	27	0.0	0.0	4.565	A
C-AB	22	5	707	0.030	22	0.0	0.0	5.252	A
C-A	19	5			19				
A-B	0	0			0				
A-C	13	3			13				

13:45 - 14:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	22	6	816	0.027	22	0.0	0.0	4.532	A
C-AB	17	4	705	0.025	17	0.0	0.0	5.235	A
C-A	16	4			16				
A-B	0	0			0				
A-C	11	3			11				

Queueing Delay Results for each time segment

13:00 - 13:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.41	0.03	4.532	A
C-AB	0.40	0.03	5.233	A

13:15 - 13:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.51	0.03	4.565	A
C-AB	0.49	0.03	5.252	A

13:30 - 13:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.52	0.03	4.565	A
C-AB	0.49	0.03	5.252	A

13:45 - 14:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	0.43	0.03	4.532	A
C-AB	0.40	0.03	5.235	A

Queue Variation Results for each time segment

13:00 - 13:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.03	0.03	0.25	0.45	0.48			N/A	N/A

13:15 - 13:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

13:30 - 13:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

13:45 - 14:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 13:00-13:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.90	0.06
C-AB	0.51	0.03
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:15-13:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.10	0.07
C-AB	0.63	0.04
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:30-13:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.10	0.07
C-AB	0.63	0.04
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 13:45-14:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.90	0.06
C-AB	0.51	0.03
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:00-13:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.90
	C - L6030 (South)	0.00	0.51	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:15-13:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	1.10
	C - L6030 (South)	0.00	0.63	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:30-13:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	1.10
	C - L6030 (South)	0.00	0.63	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - L6030-Site Access Junction - 13:45-14:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.90
	C - L6030 (South)	0.00	0.51	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:00-13:15

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.96	0.00	47.56
	C - L6030 (South)	35.58	45.79	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:15-13:30

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.99	0.00	47.60
	C - L6030 (South)	35.60	45.81	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:30-13:45

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.99	0.00	47.60
	C - L6030 (South)	35.60	45.81	0.00

Point to Point Journey Times By Turn (s) - 1 - L6030-Site Access Junction - 13:45-14:00

		To		
		A - L6030 (North)	B - Site Access	C - L6030 (South)
From	A - L6030 (North)	0.00	42.85	30.34
	B - Site Access	47.96	0.00	47.56
	C - L6030 (South)	35.58	45.80	0.00

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: N81-L6030 Junction ver1.j9
Path: C:\Users\kevin\Desktop\KH Chartered Engineers\KH Chartered Engineers - Docs\C. Jobs\WSP\S37L
Report generation date: 03/02/2025 11:40:34

»2026 Baseline, AM
»2038 Baseline, AM
»2026 Baseline + Generated, AM
»2038 Baseline + Generated, AM
»2026 Baseline, PM
»2038 Baseline, PM
»2026 Baseline + Generated, PM
»2038 Baseline + Generated, PM

Summary of junction performance

	AM			PM		
	95% Queue (Veh)	Delay (s)	RFC	95% Queue (Veh)	Delay (s)	RFC
	2026 Baseline					
Stream B-AC	0.5	8.73	0.09	0.5	9.86	0.10
Stream C-AB	0.5	5.20	0.05	0.5	3.46	0.03
	2038 Baseline					
Stream B-AC	0.5	9.41	0.10	0.5	10.90	0.12
Stream C-AB	0.6	5.21	0.06	0.5	3.31	0.04
	2026 Baseline + Generated					
Stream B-AC	0.5	8.85	0.10	0.5	10.34	0.13
Stream C-AB	0.6	5.28	0.06	0.5	3.49	0.04
	2038 Baseline + Generated					
Stream B-AC	0.5	9.55	0.12	0.5	11.48	0.16
Stream C-AB	0.9	5.29	0.07	0.5	3.34	0.05

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 average delay per arriving vehicle.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	22/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ACER\Kevin
Description	

Units

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

Flows show original traffic demand (Veh/hr).
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75	✓	✓		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D1	2024 Existing	AM	ONE HOUR	06:45	08:15	15	✓			
D2	2026 Baseline	AM	ONE HOUR	06:45	08:15	15	✓	✓	Simple	D1*1.03979
D3	2038 Baseline	AM	ONE HOUR	06:45	08:15	15	✓	✓	Simple	D1*1.1812
D4	2026 Generated	AM	ONE HOUR	06:45	08:15	15	✓			
D5	2026 Baseline + Generated	AM	ONE HOUR	06:45	08:15	15	✓	✓	Simple	D2+D4
D6	2038 Baseline + Generated	AM	ONE HOUR	06:45	08:15	15	✓	✓	Simple	D3+D4
D7	2024 Existing	PM	ONE HOUR	16:45	18:15	15	✓			
D8	2026 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D7*1.03979
D9	2038 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D7*1.1812
D10	2026 Generated	PM	ONE HOUR	16:45	18:15	15	✓			
D11	2026 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D10
D12	2038 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D9+D10

Analysis Set Details

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

2026 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometric Delay	A - N81 (South) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 377.48 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Geometric Delay	C - N81 (North) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 287.60 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Demand Sets	D2 - 2026 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	N81-L6030 Junction	T-Junction	Two-way		✓	0.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	N81 (South)		Major
B	L6030		Minor
C	N81 (North)		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 - N81 (North)	7.30			215.0	✓	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 - L6030	One lane	3.00	90	113

Geometric Delay Data for Priority Intersections

Arm	Entry speed (kph)	Exit speed (kph)	Entry radius from arm (m)	Exit radius into arm (m)	Stagger length (m)	Distance included upstream (m)	Distance included downstream (m)
A - N81 (South)	100.00	100.00	35.00			252.87	252.87
B - L6030	48.00	48.00	19.00	11.00		252.87	252.87
C - N81 (North)	80.00	80.00				252.87	252.87

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	564	0.097	0.245	0.154	0.350
1	B-C	695	0.101	0.254	-	-
1	C-B	698	0.255	0.255	-	-

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)	Results for central hour only	Run automatically	Relationship type	Relationship
D2	2026 Baseline	AM	ONE HOUR	06:45	08:15	15	✓	✓	Simple	D1*1.03979

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - N81 (South)		ONE HOUR	✓	527	100.000
B - L6030		ONE HOUR	✓	35	100.000
C - N81 (North)		ONE HOUR	✓	256	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	14	514
	B - L6030	17	0	19
	C - N81 (North)	234	22	0

Proportions

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.03	0.97
	B - L6030	0.47	0.00	0.53
	C - N81 (North)	0.91	0.09	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	0	0
	B - L6030	0	0	0
	C - N81 (North)	0	0	0

Average PCU Per Veh

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	1.000	1.000	1.000
	B - L6030	1.000	1.000	1.000
	C - N81 (North)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
06:45-07:00	A - N81 (South)	397	397
	B - L6030	27	27
	C - N81 (North)	193	193
07:00-07:15	A - N81 (South)	474	474
	B - L6030	32	32
	C - N81 (North)	230	230
07:15-07:30	A - N81 (South)	580	580
	B - L6030	39	39
	C - N81 (North)	282	282
07:30-07:45	A - N81 (South)	580	580
	B - L6030	39	39
	C - N81 (North)	282	282
07:45-08:00	A - N81 (South)	474	474
	B - L6030	32	32
	C - N81 (North)	230	230
08:00-08:15	A - N81 (South)	397	397
	B - L6030	27	27
	C - N81 (North)	193	193

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.09	8.73	0.1	0.5	A	35	35	4.88	8.29	0.05	6.53	8.06
C-AB	0.05	5.20	0.1	0.5	A	33	33	3.98	7.33	0.04	5.17	7.14
C-A						223	223					
A-B						14	14					
A-C						514	514					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	7.77	0.00
	B - L6030	14.75	0.00	8.49
	C - N81 (North)	0.00	9.51	0.00

Inclusive Geometric Delay (Veh-min) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	2.41	0.00
	B - L6030	5.63	0.00	3.64
	C - N81 (North)	0.00	4.76	0.00

Point to Point Journey Times Summary (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	50.87	0.00	46.89
	C - N81 (North)	27.63	47.00	0.00

Main Results for each time segment

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	484	0.066	32	0.1	0.1	7.954	A
C-AB	28	7	720	0.039	28	0.0	0.1	5.197	A
C-A	202	51			202				
A-B	12	3			12				
A-C	462	115			462				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	451	0.086	39	0.1	0.1	8.722	A
C-AB	37	9	729	0.051	37	0.1	0.1	5.202	A
C-A	244	61			244				
A-B	15	4			15				
A-C	566	141			566				

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	451	0.086	39	0.1	0.1	8.726	A
C-AB	37	9	729	0.051	37	0.1	0.1	5.203	A
C-A	244	61			244				
A-B	15	4			15				
A-C	566	141			566				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	484	0.066	32	0.1	0.1	7.961	A
C-AB	28	7	720	0.039	28	0.1	0.1	5.201	A
C-A	202	51			202				
A-B	12	3			12				
A-C	462	115			462				

Queueing Delay Results for each time segment

07:00 - 07:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.02	0.07	7.954	A
C-AB	0.81	0.05	5.197	A

07:15 - 07:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.37	0.09	8.722	A
C-AB	1.17	0.08	5.202	A

07:30 - 07:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.41	0.09	8.726	A
C-AB	1.18	0.08	5.203	A

07:45 - 08:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.09	0.07	7.961	A
C-AB	0.82	0.05	5.201	A

Queue Variation Results for each time segment

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.05	0.03	0.25	0.45	0.48			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.08	0.03	0.26	0.47	0.49			N/A	N/A

07:30 - 07:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.08	0.00	0.00	0.08	0.08			N/A	N/A

07:45 - 08:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-AB	0.05	0.00	0.00	0.05	0.05			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 07:00-07:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.51	0.10
C-AB	0.78	0.05
C-A	0.00	0.00
A-B	0.39	0.03
A-C	0.00	0.00

Geometric Delay results: 07:15-07:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.85	0.12
C-AB	0.95	0.06
C-A	0.00	0.00
A-B	0.48	0.03
A-C	0.00	0.00

Geometric Delay results: 07:30-07:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.85	0.12
C-AB	0.95	0.06
C-A	0.00	0.00
A-B	0.48	0.03
A-C	0.00	0.00

Geometric Delay results: 07:45-08:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.52	0.10
C-AB	0.78	0.05
C-A	0.00	0.00
A-B	0.39	0.03
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:00-07:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.39	0.00
	B - L6030	0.92	0.00	0.59
	C - N81 (North)	0.00	0.78	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:15-07:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.48	0.00
	B - L6030	1.12	0.00	0.73
	C - N81 (North)	0.00	0.95	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:30-07:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.48	0.00
	B - L6030	1.13	0.00	0.73
	C - N81 (North)	0.00	0.95	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:45-08:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.39	0.00
	B - L6030	0.92	0.00	0.60
	C - N81 (North)	0.00	0.78	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:00-07:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	50.77	0.00	46.79
	C - N81 (North)	25.68	45.05	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:15-07:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.54	0.00	47.55
	C - N81 (North)	25.68	45.06	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:30-07:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.54	0.00	47.56
	C - N81 (North)	25.69	45.06	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:45-08:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	50.78	0.00	46.79
	C - N81 (North)	25.68	45.06	0.00

2038 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometric Delay	A - N81 (South) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 377.48 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Geometric Delay	C - N81 (North) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 287.60 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Demand Sets	D3 - 2038 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	N81-L6030 Junction	T-Junction	Two-way		✓	0.63	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D3	2038 Baseline	AM	ONE HOUR	06:45	08:15	15	✓	✓	Simple	D1*1.1812

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - N81 (South)		ONE HOUR	✓	599	100.000
B - L6030		ONE HOUR	✓	40	100.000
C - N81 (North)		ONE HOUR	✓	291	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	15	584
	B - L6030	19	0	21
	C - N81 (North)	266	25	0

Proportions

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.03	0.97
	B - L6030	0.47	0.00	0.53
	C - N81 (North)	0.91	0.09	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	0	0
	B - L6030	0	0	0
	C - N81 (North)	0	0	0

Average PCU Per Veh

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	1.000	1.000	1.000
	B - L6030	1.000	1.000	1.000
	C - N81 (North)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
06:45-07:00	A - N81 (South)	451	451
	B - L6030	30	30
	C - N81 (North)	219	219
07:00-07:15	A - N81 (South)	538	538
	B - L6030	36	36
	C - N81 (North)	261	261
07:15-07:30	A - N81 (South)	659	659
	B - L6030	44	44
	C - N81 (North)	320	320
07:30-07:45	A - N81 (South)	659	659
	B - L6030	44	44
	C - N81 (North)	320	320
07:45-08:00	A - N81 (South)	538	538
	B - L6030	36	36
	C - N81 (North)	261	261
08:00-08:15	A - N81 (South)	451	451
	B - L6030	30	30
	C - N81 (North)	219	219

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.10	9.41	0.1	0.5	A	40	40	5.92	8.85	0.07	7.88	8.55
C-AB	0.06	5.21	0.1	0.6	A	39	39	5.10	7.77	0.06	6.58	7.54
C-A						251	251					
A-B						15	15					
A-C						584	584					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	7.77	0.00
	B - L6030	14.75	0.00	8.49
	C - N81 (North)	0.00	9.51	0.00

Inclusive Geometric Delay (Veh-min) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	2.74	0.00
	B - L6030	6.39	0.00	4.14
	C - N81 (North)	0.00	5.41	0.00

Point to Point Journey Times Summary (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.37	0.00	47.38
	C - N81 (North)	28.02	47.40	0.00

Main Results for each time segment

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	9	464	0.078	36	0.1	0.1	8.402	A
C-AB	33	8	726	0.046	33	0.0	0.1	5.200	A
C-A	228	57			228				
A-B	14	3			14				
A-C	525	131			525				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	44	11	427	0.104	44	0.1	0.1	9.400	A
C-AB	45	11	737	0.062	45	0.1	0.1	5.207	A
C-A	274	69			274				
A-B	17	4			17				
A-C	642	161			642				

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	44	11	427	0.104	44	0.1	0.1	9.407	A
C-AB	45	11	737	0.062	45	0.1	0.1	5.211	A
C-A	274	69			274				
A-B	17	4			17				
A-C	642	161			642				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	9	464	0.078	36	0.1	0.1	8.409	A
C-AB	33	8	726	0.046	34	0.1	0.1	5.203	A
C-A	228	57			228				
A-B	14	3			14				
A-C	525	131			525				

Queueing Delay Results for each time segment

07:00 - 07:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.22	0.08	8.402	A
C-AB	1.01	0.07	5.200	A

07:15 - 07:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.67	0.11	9.400	A
C-AB	1.52	0.10	5.207	A

07:30 - 07:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.72	0.11	9.407	A
C-AB	1.53	0.10	5.211	A

07:45 - 08:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.31	0.09	8.409	A
C-AB	1.03	0.07	5.203	A

Queue Variation Results for each time segment

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.07	0.03	0.25	0.45	0.48			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.10	0.03	0.26	0.48	0.60			N/A	N/A

07:30 - 07:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.10	0.00	0.00	0.10	0.10			N/A	N/A

07:45 - 08:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C-AB	0.07	0.00	0.00	0.07	0.07			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 07:00-07:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.72	0.11
C-AB	0.88	0.06
C-A	0.00	0.00
A-B	0.45	0.03
A-C	0.00	0.00

Geometric Delay results: 07:15-07:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.10	0.14
C-AB	1.08	0.07
C-A	0.00	0.00
A-B	0.55	0.04
A-C	0.00	0.00

Geometric Delay results: 07:30-07:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.11	0.14
C-AB	1.08	0.07
C-A	0.00	0.00
A-B	0.55	0.04
A-C	0.00	0.00

Geometric Delay results: 07:45-08:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.73	0.12
C-AB	0.89	0.06
C-A	0.00	0.00
A-B	0.45	0.03
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:00-07:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.45	0.00
	B - L6030	1.04	0.00	0.67
	C - N81 (North)	0.00	0.88	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:15-07:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.55	0.00
	B - L6030	1.28	0.00	0.83
	C - N81 (North)	0.00	1.08	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:30-07:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.55	0.00
	B - L6030	1.28	0.00	0.83
	C - N81 (North)	0.00	1.08	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:45-08:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.45	0.00
	B - L6030	1.05	0.00	0.68
	C - N81 (North)	0.00	0.89	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:00-07:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.22	0.00	47.23
	C - N81 (North)	25.68	45.06	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:15-07:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.22	0.00	48.23
	C - N81 (North)	25.69	45.06	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:30-07:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.22	0.00	48.24
	C - N81 (North)	25.69	45.07	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:45-08:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.23	0.00	47.24
	C - N81 (North)	25.69	45.06	0.00

2026 Baseline + Generated, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometric Delay	A - N81 (South) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 377.48 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Geometric Delay	C - N81 (North) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 287.60 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Demand Sets	D5 - 2026 Baseline + Generated, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	N81-L6030 Junction	T-Junction	Two-way		✓	0.68	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D5	2026 Baseline + Generated	AM	ONE HOUR	06:45	08:15	15	✓	✓	Simple	D2+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - N81 (South)		ONE HOUR	✓	531	100.000
B - L6030		ONE HOUR	✓	40	100.000
C - N81 (North)		ONE HOUR	✓	261	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	18	514
	B - L6030	19	0	22
	C - N81 (North)	234	27	0

Proportions

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.03	0.97
	B - L6030	0.46	0.00	0.54
	C - N81 (North)	0.90	0.10	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	0	0
	B - L6030	0	0	0
	C - N81 (North)	0	0	0

Average PCU Per Veh

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	1.000	1.000	1.000
	B - L6030	1.000	1.000	1.000
	C - N81 (North)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
06:45-07:00	A - N81 (South)	400	400
	B - L6030	30	30
	C - N81 (North)	196	196
07:00-07:15	A - N81 (South)	478	478
	B - L6030	36	36
	C - N81 (North)	234	234
07:15-07:30	A - N81 (South)	585	585
	B - L6030	44	44
	C - N81 (North)	287	287
07:30-07:45	A - N81 (South)	585	585
	B - L6030	44	44
	C - N81 (North)	287	287
07:45-08:00	A - N81 (South)	478	478
	B - L6030	36	36
	C - N81 (North)	234	234
08:00-08:15	A - N81 (South)	400	400
	B - L6030	30	30
	C - N81 (North)	196	196

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.10	8.85	0.1	0.5	A	40	40	5.64	8.39	0.06	7.54	8.14
C-AB	0.06	5.28	0.1	0.6	A	40	40	5.28	7.92	0.06	6.84	7.68
C-A						221	221					
A-B						18	18					
A-C						514	514					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	7.77	0.00
	B - L6030	14.75	0.00	8.49
	C - N81 (North)	0.00	9.51	0.00

Inclusive Geometric Delay (Veh-min) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	3.12	0.00
	B - L6030	6.31	0.00	4.23
	C - N81 (North)	0.00	5.86	0.00

Point to Point Journey Times Summary (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	50.96	0.00	46.98
	C - N81 (North)	28.17	47.54	0.00

Main Results for each time segment

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	9	484	0.075	36	0.1	0.1	8.033	A
C-AB	34	9	720	0.047	34	0.1	0.1	5.254	A
C-A	200	50			200				
A-B	16	4			16				
A-C	462	115			462				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	44	11	451	0.098	44	0.1	0.1	8.846	A
C-AB	46	11	728	0.063	46	0.1	0.1	5.275	A
C-A	241	60			241				
A-B	19	5			19				
A-C	566	141			566				

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	44	11	451	0.098	44	0.1	0.1	8.850	A
C-AB	46	11	728	0.063	46	0.1	0.1	5.279	A
C-A	241	60			241				
A-B	19	5			19				
A-C	566	141			566				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	9	484	0.075	36	0.1	0.1	8.041	A
C-AB	34	9	720	0.048	34	0.1	0.1	5.257	A
C-A	200	50			200				
A-B	16	4			16				
A-C	462	115			462				

Queueing Delay Results for each time segment

07:00 - 07:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.18	0.08	8.033	A
C-AB	1.06	0.07	5.254	A

07:15 - 07:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.58	0.11	8.846	A
C-AB	1.56	0.10	5.275	A

07:30 - 07:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.63	0.11	8.850	A
C-AB	1.58	0.11	5.279	A

07:45 - 08:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.26	0.08	8.041	A
C-AB	1.08	0.07	5.257	A

Queue Variation Results for each time segment

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.07	0.03	0.25	0.45	0.48			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.10	0.03	0.27	0.48	0.63			N/A	N/A

07:30 - 07:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.10	0.00	0.00	0.10	0.10			N/A	N/A

07:45 - 08:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.07	0.00	0.00	0.07	0.07			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 07:00-07:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.72	0.11
C-AB	0.95	0.06
C-A	0.00	0.00
A-B	0.51	0.03
A-C	0.00	0.00

Geometric Delay results: 07:15-07:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.10	0.14
C-AB	1.17	0.08
C-A	0.00	0.00
A-B	0.62	0.04
A-C	0.00	0.00

Geometric Delay results: 07:30-07:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.11	0.14
C-AB	1.17	0.08
C-A	0.00	0.00
A-B	0.62	0.04
A-C	0.00	0.00

Geometric Delay results: 07:45-08:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.73	0.12
C-AB	0.96	0.06
C-A	0.00	0.00
A-B	0.51	0.03
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:00-07:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.51	0.00
	B - L6030	1.03	0.00	0.69
	C - N81 (North)	0.00	0.95	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:15-07:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.62	0.00
	B - L6030	1.26	0.00	0.84
	C - N81 (North)	0.00	1.17	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:30-07:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.62	0.00
	B - L6030	1.26	0.00	0.85
	C - N81 (North)	0.00	1.17	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:45-08:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.51	0.00
	B - L6030	1.03	0.00	0.69
	C - N81 (North)	0.00	0.96	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:00-07:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	50.85	0.00	46.87
	C - N81 (North)	25.74	45.11	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:15-07:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.66	0.00	47.68
	C - N81 (North)	25.76	45.13	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:30-07:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.67	0.00	47.68
	C - N81 (North)	25.76	45.13	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:45-08:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	50.86	0.00	46.87
	C - N81 (North)	25.74	45.11	0.00

2038 Baseline + Generated, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometric Delay	A - N81 (South) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 377.48 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Geometric Delay	C - N81 (North) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 287.60 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Demand Sets	D6 - 2038 Baseline + Generated, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	N81-L6030 Junction	T-Junction	Two-way		✓	0.72	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D6	2038 Baseline + Generated	AM	ONE HOUR	06:45	08:15	15	✓	✓	Simple	D3+D4

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - N81 (South)		ONE HOUR	✓	603	100.000
B - L6030		ONE HOUR	✓	45	100.000
C - N81 (North)		ONE HOUR	✓	296	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	19	584
	B - L6030	21	0	24
	C - N81 (North)	266	30	0

Proportions

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.03	0.97
	B - L6030	0.46	0.00	0.54
	C - N81 (North)	0.90	0.10	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	0	0
	B - L6030	0	0	0
	C - N81 (North)	0	0	0

Average PCU Per Veh

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	1.000	1.000	1.000
	B - L6030	1.000	1.000	1.000
	C - N81 (North)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
06:45-07:00	A - N81 (South)	454	454
	B - L6030	34	34
	C - N81 (North)	223	223
07:00-07:15	A - N81 (South)	542	542
	B - L6030	41	41
	C - N81 (North)	266	266
07:15-07:30	A - N81 (South)	664	664
	B - L6030	50	50
	C - N81 (North)	325	325
07:30-07:45	A - N81 (South)	664	664
	B - L6030	50	50
	C - N81 (North)	325	325
07:45-08:00	A - N81 (South)	542	542
	B - L6030	41	41
	C - N81 (North)	266	266
08:00-08:15	A - N81 (South)	454	454
	B - L6030	34	34
	C - N81 (North)	223	223

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.12	9.55	0.1	0.5	A	45	45	6.75	8.97	0.07	8.97	8.66
C-AB	0.07	5.29	0.1	0.9	A	47	47	6.64	8.40	0.07	8.52	8.12
C-A						248	248					
A-B						19	19					
A-C						584	584					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	7.77	0.00
	B - L6030	14.75	0.00	8.49
	C - N81 (North)	0.00	9.51	0.00

Inclusive Geometric Delay (Veh-min) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	3.45	0.00
	B - L6030	7.07	0.00	4.72
	C - N81 (North)	0.00	6.50	0.00

Point to Point Journey Times Summary (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.47	0.00	47.49
	C - N81 (North)	28.60	47.97	0.00

Main Results for each time segment

07:00 - 07:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	10	464	0.087	41	0.1	0.1	8.491	A
C-AB	40	10	725	0.055	40	0.1	0.1	5.259	A
C-A	226	56			226				
A-B	17	4			17				
A-C	525	131			525				

07:15 - 07:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	12	426	0.117	50	0.1	0.1	9.551	A
C-AB	55	14	736	0.074	54	0.1	0.1	5.285	A
C-A	271	68			271				
A-B	21	5			21				
A-C	642	161			642				

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	12	426	0.117	50	0.1	0.1	9.555	A
C-AB	55	14	736	0.074	55	0.1	0.1	5.288	A
C-A	271	68			271				
A-B	21	5			21				
A-C	642	161			642				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	10	464	0.087	41	0.1	0.1	8.503	A
C-AB	40	10	725	0.055	40	0.1	0.1	5.261	A
C-A	226	56			226				
A-B	17	4			17				
A-C	525	131			525				

Queueing Delay Results for each time segment

07:00 - 07:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.39	0.09	8.491	A
C-AB	1.31	0.09	5.259	A

07:15 - 07:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.90	0.13	9.551	A
C-AB	1.99	0.13	5.285	A

07:30 - 07:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.96	0.13	9.555	A
C-AB	2.01	0.13	5.288	A

07:45 - 08:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.49	0.10	8.503	A
C-AB	1.33	0.09	5.261	A

Queue Variation Results for each time segment

07:00 - 07:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.09	0.03	0.25	0.45	0.48			N/A	N/A

07:15 - 07:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.13	0.03	0.27	0.48	0.89			N/A	N/A

07:30 - 07:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.13	0.00	0.00	0.13	0.13			N/A	N/A

07:45 - 08:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C-AB	0.09	0.00	0.00	0.09	0.09			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 07:00-07:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.92	0.13
C-AB	1.06	0.07
C-A	0.00	0.00
A-B	0.56	0.04
A-C	0.00	0.00

Geometric Delay results: 07:15-07:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.35	0.16
C-AB	1.30	0.09
C-A	0.00	0.00
A-B	0.69	0.05
A-C	0.00	0.00

Geometric Delay results: 07:30-07:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.36	0.16
C-AB	1.30	0.09
C-A	0.00	0.00
A-B	0.69	0.05
A-C	0.00	0.00

Geometric Delay results: 07:45-08:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.93	0.13
C-AB	1.07	0.07
C-A	0.00	0.00
A-B	0.56	0.04
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:00-07:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.56	0.00
	B - L6030	1.15	0.00	0.77
	C - N81 (North)	0.00	1.06	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:15-07:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.69	0.00
	B - L6030	1.41	0.00	0.94
	C - N81 (North)	0.00	1.30	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:30-07:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.69	0.00
	B - L6030	1.41	0.00	0.94
	C - N81 (North)	0.00	1.30	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 07:45-08:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.56	0.00
	B - L6030	1.16	0.00	0.77
	C - N81 (North)	0.00	1.07	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:00-07:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.31	0.00	47.32
	C - N81 (North)	25.74	45.11	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:15-07:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.37	0.00	48.38
	C - N81 (North)	25.77	45.14	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:30-07:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.37	0.00	48.39
	C - N81 (North)	25.77	45.14	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 07:45-08:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.32	0.00	47.33
	C - N81 (North)	25.74	45.12	0.00

2026 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometric Delay	A - N81 (South) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 377.48 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Geometric Delay	C - N81 (North) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 287.60 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Demand Sets	D8 - 2026 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	N81-L6030 Junction	T-Junction	Two-way		✓	0.39	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D8	2026 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D7*1.03979

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - N81 (South)		ONE HOUR	✓	345	100.000
B - L6030		ONE HOUR	✓	35	100.000
C - N81 (North)		ONE HOUR	✓	756	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	12	333
	B - L6030	23	0	12
	C - N81 (North)	748	8	0

Proportions

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.04	0.96
	B - L6030	0.65	0.00	0.35
	C - N81 (North)	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	0	0
	B - L6030	0	0	0
	C - N81 (North)	0	0	0

Average PCU Per Veh

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	1.000	1.000	1.000
	B - L6030	1.000	1.000	1.000
	C - N81 (North)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - N81 (South)	260	260
	B - L6030	27	27
	C - N81 (North)	569	569
17:00-17:15	A - N81 (South)	310	310
	B - L6030	32	32
	C - N81 (North)	680	680
17:15-17:30	A - N81 (South)	380	380
	B - L6030	39	39
	C - N81 (North)	832	832
17:30-17:45	A - N81 (South)	380	380
	B - L6030	39	39
	C - N81 (North)	832	832
17:45-18:00	A - N81 (South)	310	310
	B - L6030	32	32
	C - N81 (North)	680	680
18:00-18:15	A - N81 (South)	260	260
	B - L6030	27	27
	C - N81 (North)	569	569

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.10	9.86	0.1	0.5	A	35	35	5.45	9.25	0.06	7.24	8.93
C-AB	0.03	3.46	0.0	0.5	A	26	26	1.78	4.05	0.02	2.28	4.06
C-A						730	730					
A-B						12	12					
A-C						333	333					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	7.77	0.00
	B - L6030	14.75	0.00	8.49
	C - N81 (North)	0.00	9.51	0.00

Inclusive Geometric Delay (Veh-min) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	2.22	0.00
	B - L6030	7.74	0.00	2.43
	C - N81 (North)	0.00	1.81	0.00

Point to Point Journey Times Summary (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.74	0.00	47.76
	C - N81 (North)	24.55	43.92	0.00

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	443	0.072	32	0.1	0.1	8.759	A
C-AB	20	5	1060	0.019	20	0.0	0.0	3.461	A
C-A	659	165			659				
A-B	11	3			11				
A-C	299	75			299				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	404	0.096	39	0.1	0.1	9.854	A
C-AB	32	8	1150	0.028	32	0.0	0.0	3.221	A
C-A	800	200			800				
A-B	14	3			14				
A-C	366	92			366				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	404	0.096	39	0.1	0.1	9.860	A
C-AB	32	8	1150	0.028	32	0.0	0.0	3.221	A
C-A	800	200			800				
A-B	14	3			14				
A-C	366	92			366				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	443	0.072	32	0.1	0.1	8.765	A
C-AB	21	5	1060	0.019	21	0.0	0.0	3.464	A
C-A	659	165			659				
A-B	11	3			11				
A-C	299	75			299				

Queueing Delay Results for each time segment

17:00 - 17:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.12	0.07	8.759	A
C-AB	0.35	0.02	3.461	A

17:15 - 17:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.54	0.10	9.854	A
C-AB	0.54	0.04	3.221	A

17:30 - 17:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.59	0.11	9.860	A
C-AB	0.54	0.04	3.221	A

17:45 - 18:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.20	0.08	8.765	A
C-AB	0.35	0.02	3.464	A

Queue Variation Results for each time segment

17:00 - 17:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.03	0.26	0.46	0.49			N/A	N/A
C-AB	0.02	0.02	0.25	0.45	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.04	0.00	0.00	0.04	0.04			N/A	N/A

17:30 - 17:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.04	0.00	0.00	0.04	0.04			N/A	N/A

17:45 - 18:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 17:00-17:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.66	0.11
C-AB	0.30	0.02
C-A	0.00	0.00
A-B	0.36	0.02
A-C	0.00	0.00

Geometric Delay results: 17:15-17:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.03	0.14
C-AB	0.36	0.02
C-A	0.00	0.00
A-B	0.44	0.03
A-C	0.00	0.00

Geometric Delay results: 17:30-17:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.03	0.14
C-AB	0.36	0.02
C-A	0.00	0.00
A-B	0.44	0.03
A-C	0.00	0.00

Geometric Delay results: 17:45-18:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.67	0.11
C-AB	0.30	0.02
C-A	0.00	0.00
A-B	0.36	0.02
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:00-17:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.36	0.00
	B - L6030	1.26	0.00	0.40
	C - N81 (North)	0.00	0.30	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:15-17:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.44	0.00
	B - L6030	1.54	0.00	0.48
	C - N81 (North)	0.00	0.36	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:30-17:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.44	0.00
	B - L6030	1.55	0.00	0.49
	C - N81 (North)	0.00	0.36	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:45-18:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.36	0.00
	B - L6030	1.27	0.00	0.40
	C - N81 (North)	0.00	0.30	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:00-17:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.58	0.00	47.59
	C - N81 (North)	23.94	43.32	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:15-17:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.67	0.00	48.69
	C - N81 (North)	23.70	43.08	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:30-17:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.68	0.00	48.69
	C - N81 (North)	23.70	43.08	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:45-18:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.58	0.00	47.60
	C - N81 (North)	23.95	43.32	0.00

2038 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometric Delay	A - N81 (South) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 377.48 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Geometric Delay	C - N81 (North) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 287.60 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Demand Sets	D9 - 2038 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	N81-L6030 Junction	T-Junction	Two-way		✓	0.43	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D9	2038 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D7*1.1812

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - N81 (South)		ONE HOUR	✓	392	100.000
B - L6030		ONE HOUR	✓	40	100.000
C - N81 (North)		ONE HOUR	✓	859	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	14	378
	B - L6030	26	0	14
	C - N81 (North)	849	9	0

Proportions

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.04	0.96
	B - L6030	0.65	0.00	0.35
	C - N81 (North)	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	0	0
	B - L6030	0	0	0
	C - N81 (North)	0	0	0

Average PCU Per Veh

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	1.000	1.000	1.000
	B - L6030	1.000	1.000	1.000
	C - N81 (North)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - N81 (South)	295	295
	B - L6030	30	30
	C - N81 (North)	646	646
17:00-17:15	A - N81 (South)	353	353
	B - L6030	36	36
	C - N81 (North)	772	772
17:15-17:30	A - N81 (South)	432	432
	B - L6030	44	44
	C - N81 (North)	945	945
17:30-17:45	A - N81 (South)	432	432
	B - L6030	44	44
	C - N81 (North)	945	945
17:45-18:00	A - N81 (South)	353	353
	B - L6030	36	36
	C - N81 (North)	772	772
18:00-18:15	A - N81 (South)	295	295
	B - L6030	30	30
	C - N81 (North)	646	646

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.12	10.90	0.1	0.5	B	40	40	6.74	10.08	0.07	8.89	9.65
C-AB	0.04	3.31	0.1	0.5	A	36	36	2.44	4.07	0.03	3.07	4.07
C-A						823	823					
A-B						14	14					
A-C						378	378					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	7.77	0.00
	B - L6030	14.75	0.00	8.49
	C - N81 (North)	0.00	9.51	0.00

Inclusive Geometric Delay (Veh-min) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	2.53	0.00
	B - L6030	8.79	0.00	2.76
	C - N81 (North)	0.00	2.06	0.00

Point to Point Journey Times Summary (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.46	0.00	48.48
	C - N81 (North)	24.55	43.92	0.00

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	9	419	0.086	36	0.1	0.1	9.387	A
C-AB	27	7	1114	0.024	27	0.0	0.0	3.311	A
C-A	745	186			745				
A-B	13	3			13				
A-C	340	85			340				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	44	11	375	0.118	44	0.1	0.1	10.887	B
C-AB	45	11	1218	0.037	45	0.0	0.1	3.068	A
C-A	901	225			901				
A-B	16	4			16				
A-C	416	104			416				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	44	11	375	0.118	44	0.1	0.1	10.896	B
C-AB	45	11	1218	0.037	45	0.1	0.1	3.069	A
C-A	900	225			900				
A-B	16	4			16				
A-C	416	104			416				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	36	9	419	0.086	36	0.1	0.1	9.401	A
C-AB	27	7	1114	0.024	27	0.1	0.0	3.314	A
C-A	745	186			745				
A-B	13	3			13				
A-C	340	85			340				

Queueing Delay Results for each time segment

17:00 - 17:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.36	0.09	9.387	A
C-AB	0.45	0.03	3.311	A

17:15 - 17:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.92	0.13	10.887	B
C-AB	0.76	0.05	3.068	A

17:30 - 17:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.99	0.13	10.896	B
C-AB	0.77	0.05	3.069	A

17:45 - 18:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.47	0.10	9.401	A
C-AB	0.46	0.03	3.314	A

Queue Variation Results for each time segment

17:00 - 17:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.03	0.03	0.25	0.45	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.05	0.00	0.00	0.05	0.05			N/A	N/A

17:30 - 17:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.05	0.00	0.00	0.05	0.05			N/A	N/A

17:45 - 18:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 17:00-17:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.88	0.13
C-AB	0.34	0.02
C-A	0.00	0.00
A-B	0.41	0.03
A-C	0.00	0.00

Geometric Delay results: 17:15-17:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.30	0.15
C-AB	0.41	0.03
C-A	0.00	0.00
A-B	0.51	0.03
A-C	0.00	0.00

Geometric Delay results: 17:30-17:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.31	0.15
C-AB	0.41	0.03
C-A	0.00	0.00
A-B	0.51	0.03
A-C	0.00	0.00

Geometric Delay results: 17:45-18:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	1.89	0.13
C-AB	0.34	0.02
C-A	0.00	0.00
A-B	0.41	0.03
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:00-17:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.41	0.00
	B - L6030	1.43	0.00	0.45
	C - N81 (North)	0.00	0.34	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:15-17:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.51	0.00
	B - L6030	1.75	0.00	0.55
	C - N81 (North)	0.00	0.41	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:30-17:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.51	0.00
	B - L6030	1.76	0.00	0.55
	C - N81 (North)	0.00	0.41	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:45-18:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.41	0.00
	B - L6030	1.44	0.00	0.45
	C - N81 (North)	0.00	0.34	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:00-17:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.20	0.00	48.22
	C - N81 (North)	23.79	43.17	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:15-17:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	53.70	0.00	49.72
	C - N81 (North)	23.55	42.92	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:30-17:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	53.71	0.00	49.73
	C - N81 (North)	23.55	42.92	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:45-18:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.22	0.00	48.23
	C - N81 (North)	23.80	43.17	0.00

2026 Baseline + Generated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometric Delay	A - N81 (South) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 377.48 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Geometric Delay	C - N81 (North) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 287.60 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Demand Sets	D11 - 2026 Baseline + Generated, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	N81-L6030 Junction	T-Junction	Two-way		✓	0.55	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D11	2026 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D8+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - N81 (South)		ONE HOUR	✓	350	100.000
B - L6030		ONE HOUR	✓	49	100.000
C - N81 (North)		ONE HOUR	✓	759	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	17	333
	B - L6030	32	0	17
	C - N81 (North)	748	11	0

Proportions

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.05	0.95
	B - L6030	0.65	0.00	0.35
	C - N81 (North)	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	0	0
	B - L6030	0	0	0
	C - N81 (North)	0	0	0

Average PCU Per Veh

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	1.000	1.000	1.000
	B - L6030	1.000	1.000	1.000
	C - N81 (North)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - N81 (South)	264	264
	B - L6030	37	37
	C - N81 (North)	571	571
17:00-17:15	A - N81 (South)	315	315
	B - L6030	44	44
	C - N81 (North)	682	682
17:15-17:30	A - N81 (South)	386	386
	B - L6030	54	54
	C - N81 (North)	836	836
17:30-17:45	A - N81 (South)	386	386
	B - L6030	54	54
	C - N81 (North)	836	836
17:45-18:00	A - N81 (South)	315	315
	B - L6030	44	44
	C - N81 (North)	682	682
18:00-18:15	A - N81 (South)	264	264
	B - L6030	37	37
	C - N81 (North)	571	571

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.13	10.34	0.2	0.5	B	49	49	7.92	9.63	0.09	10.49	9.26
C-AB	0.04	3.49	0.1	0.5	A	36	36	2.61	4.36	0.03	3.32	4.35
C-A						723	723					
A-B						17	17					
A-C						333	333					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	7.77	0.00
	B - L6030	14.75	0.00	8.49
	C - N81 (North)	0.00	9.51	0.00

Inclusive Geometric Delay (Veh-min) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	3.12	0.00
	B - L6030	10.78	0.00	3.40
	C - N81 (North)	0.00	2.47	0.00

Point to Point Journey Times Summary (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.08	0.00	48.10
	C - N81 (North)	24.83	44.20	0.00

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	44	11	442	0.100	44	0.1	0.1	9.057	A
C-AB	28	7	1059	0.026	28	0.0	0.0	3.489	A
C-A	654	164			654				
A-B	16	4			16				
A-C	299	75			299				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	54	14	403	0.135	54	0.1	0.2	10.325	B
C-AB	44	11	1149	0.038	44	0.0	0.1	3.257	A
C-A	792	198			792				
A-B	19	5			19				
A-C	366	92			366				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	54	14	403	0.135	54	0.2	0.2	10.335	B
C-AB	44	11	1149	0.038	44	0.1	0.1	3.260	A
C-A	791	198			791				
A-B	19	5			19				
A-C	366	92			366				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	44	11	442	0.100	45	0.2	0.1	9.071	A
C-AB	28	7	1059	0.026	28	0.1	0.0	3.489	A
C-A	654	164			654				
A-B	16	4			16				
A-C	299	75			299				

Queueing Delay Results for each time segment

17:00 - 17:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.62	0.11	9.057	A
C-AB	0.50	0.03	3.489	A

17:15 - 17:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	2.24	0.15	10.325	B
C-AB	0.80	0.05	3.257	A

17:30 - 17:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	2.32	0.15	10.335	B
C-AB	0.81	0.05	3.260	A

17:45 - 18:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.74	0.12	9.071	A
C-AB	0.51	0.03	3.489	A

Queue Variation Results for each time segment

17:00 - 17:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C-AB	0.03	0.03	0.25	0.45	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.15	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.05	0.00	0.00	0.05	0.05			N/A	N/A

17:30 - 17:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.16	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.05	0.00	0.00	0.05	0.05			N/A	N/A

17:45 - 18:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 17:00-17:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.31	0.15
C-AB	0.40	0.03
C-A	0.00	0.00
A-B	0.51	0.03
A-C	0.00	0.00

Geometric Delay results: 17:15-17:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.83	0.19
C-AB	0.49	0.03
C-A	0.00	0.00
A-B	0.62	0.04
A-C	0.00	0.00

Geometric Delay results: 17:30-17:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.84	0.19
C-AB	0.49	0.03
C-A	0.00	0.00
A-B	0.62	0.04
A-C	0.00	0.00

Geometric Delay results: 17:45-18:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.33	0.16
C-AB	0.40	0.03
C-A	0.00	0.00
A-B	0.51	0.03
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:00-17:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.51	0.00
	B - L6030	1.76	0.00	0.55
	C - N81 (North)	0.00	0.40	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:15-17:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.62	0.00
	B - L6030	2.15	0.00	0.68
	C - N81 (North)	0.00	0.49	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:30-17:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.62	0.00
	B - L6030	2.16	0.00	0.68
	C - N81 (North)	0.00	0.49	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:45-18:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.51	0.00
	B - L6030	1.77	0.00	0.56
	C - N81 (North)	0.00	0.40	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:00-17:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.87	0.00	47.89
	C - N81 (North)	23.97	43.34	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:15-17:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	53.14	0.00	49.16
	C - N81 (North)	23.74	43.11	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:30-17:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	53.15	0.00	49.17
	C - N81 (North)	23.74	43.12	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:45-18:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	51.89	0.00	47.90
	C - N81 (North)	23.97	43.34	0.00

2038 Baseline + Generated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometric Delay	A - N81 (South) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 377.48 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Geometric Delay	C - N81 (North) - Geometric delay	Geometric delay: Distance included up/down-stream should be increased to 287.60 m to allow for acceleration/deceleration to/from junction speed, otherwise results may be unreliable.
Warning	Demand Sets	D12 - 2038 Baseline + Generated, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D5 - 2026 Baseline + Generated, AM	Demand Set relationships are chained. This may slow down the file.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Visibilities conform to TD 42/95	Junction Delay (s)	Junction LOS
1	N81-L6030 Junction	T-Junction	Two-way		✓	0.59	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)	Results for central hour only	Run automatically	Relationship type	Relationship
D12	2038 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D9+D10

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - N81 (South)		ONE HOUR	✓	397	100.000
B - L6030		ONE HOUR	✓	54	100.000
C - N81 (North)		ONE HOUR	✓	862	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	19	378
	B - L6030	35	0	19
	C - N81 (North)	849	12	0

Proportions

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.05	0.95
	B - L6030	0.65	0.00	0.35
	C - N81 (North)	0.99	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0	0	0
	B - L6030	0	0	0
	C - N81 (North)	0	0	0

Average PCU Per Veh

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	1.000	1.000	1.000
	B - L6030	1.000	1.000	1.000
	C - N81 (North)	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - N81 (South)	299	299
	B - L6030	41	41
	C - N81 (North)	649	649
17:00-17:15	A - N81 (South)	357	357
	B - L6030	49	49
	C - N81 (North)	775	775
17:15-17:30	A - N81 (South)	437	437
	B - L6030	60	60
	C - N81 (North)	949	949
17:30-17:45	A - N81 (South)	437	437
	B - L6030	60	60
	C - N81 (North)	949	949
17:45-18:00	A - N81 (South)	357	357
	B - L6030	49	49
	C - N81 (North)	775	775
18:00-18:15	A - N81 (South)	299	299
	B - L6030	41	41
	C - N81 (North)	649	649

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.16	11.48	0.2	0.5	B	54	54	9.51	10.53	0.11	12.48	10.05
C-AB	0.05	3.34	0.1	0.5	A	48	48	3.49	4.41	0.04	4.36	4.38
C-A						814	814					
A-B						19	19					
A-C						378	378					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	7.77	0.00
	B - L6030	14.75	0.00	8.49
	C - N81 (North)	0.00	9.51	0.00

Inclusive Geometric Delay (Veh-min) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	3.42	0.00
	B - L6030	11.84	0.00	3.73
	C - N81 (North)	0.00	2.72	0.00

Point to Point Journey Times Summary (s) - 1 - N81-L6030 Junction

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.86	0.00	48.88
	C - N81 (North)	24.86	44.24	0.00

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	49	12	418	0.116	49	0.1	0.1	9.733	A
C-AB	36	9	1113	0.032	36	0.0	0.0	3.340	A
C-A	739	185			739				
A-B	17	4			17				
A-C	340	85			340				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	60	15	373	0.160	59	0.1	0.2	11.465	B
C-AB	59	15	1217	0.049	59	0.0	0.1	3.108	A
C-A	889	222			889				
A-B	21	5			21				
A-C	416	104			416				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	60	15	373	0.160	60	0.2	0.2	11.482	B
C-AB	59	15	1217	0.049	59	0.1	0.1	3.111	A
C-A	889	222			889				
A-B	21	5			21				
A-C	416	104			416				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	49	12	418	0.116	49	0.2	0.1	9.753	A
C-AB	36	9	1113	0.032	36	0.1	0.0	3.343	A
C-A	739	185			739				
A-B	17	4			17				
A-C	340	85			340				

Queueing Delay Results for each time segment

17:00 - 17:15

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.90	0.13	9.733	A
C-AB	0.64	0.04	3.340	A

17:15 - 17:30

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	2.72	0.18	11.465	B
C-AB	1.10	0.07	3.108	A

17:30 - 17:45

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	2.82	0.19	11.482	B
C-AB	1.11	0.07	3.111	A

17:45 - 18:00

Stream	Queueing total delay (Veh-min)	Queueing rate of delay (Veh-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	2.06	0.14	9.753	A
C-AB	0.65	0.04	3.343	A

Queue Variation Results for each time segment

17:00 - 17:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C-AB	0.04	0.03	0.25	0.45	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.19	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.07	0.03	0.25	0.46	0.48			N/A	N/A

17:30 - 17:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.19	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.07	0.00	0.00	0.07	0.07			N/A	N/A

17:45 - 18:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C-AB	0.04	0.00	0.00	0.04	0.04			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 17:00-17:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.54	0.17
C-AB	0.44	0.03
C-A	0.00	0.00
A-B	0.56	0.04
A-C	0.00	0.00

Geometric Delay results: 17:15-17:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	3.10	0.21
C-AB	0.54	0.04
C-A	0.00	0.00
A-B	0.68	0.05
A-C	0.00	0.00

Geometric Delay results: 17:30-17:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	3.11	0.21
C-AB	0.54	0.04
C-A	0.00	0.00
A-B	0.68	0.05
A-C	0.00	0.00

Geometric Delay results: 17:45-18:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	2.55	0.17
C-AB	0.44	0.03
C-A	0.00	0.00
A-B	0.56	0.04
A-C	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:00-17:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.56	0.00
	B - L6030	1.93	0.00	0.61
	C - N81 (North)	0.00	0.44	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:15-17:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.68	0.00
	B - L6030	2.36	0.00	0.74
	C - N81 (North)	0.00	0.54	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:30-17:45

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.68	0.00
	B - L6030	2.37	0.00	0.75
	C - N81 (North)	0.00	0.54	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - N81-L6030 Junction - 17:45-18:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	0.56	0.00
	B - L6030	1.94	0.00	0.61
	C - N81 (North)	0.00	0.44	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:00-17:15

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.55	0.00	48.56
	C - N81 (North)	23.82	43.20	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:15-17:30

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	54.28	0.00	50.30
	C - N81 (North)	23.59	42.96	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:30-17:45

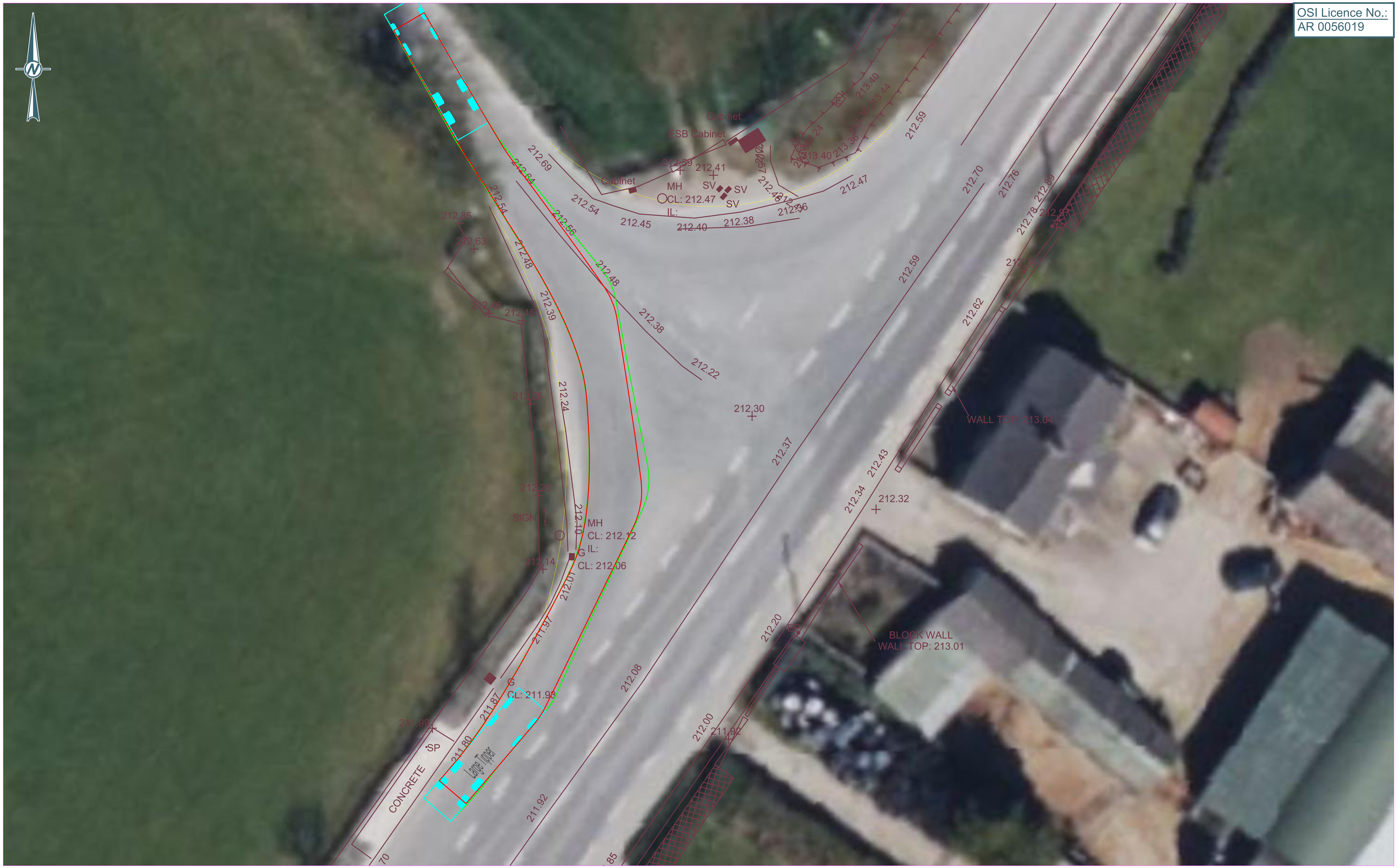
		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	54.30	0.00	50.31
	C - N81 (North)	23.59	42.97	0.00

Point to Point Journey Times By Turn (s) - 1 - N81-L6030 Junction - 17:45-18:00

		To		
		A - N81 (South)	B - L6030	C - N81 (North)
From	A - N81 (South)	0.00	35.84	20.48
	B - L6030	52.57	0.00	48.58
	C - N81 (North)	23.83	43.20	0.00

Appendix 12B.

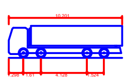
DRAWINGS



LEGEND:

Haulage Vehicle

VEHICLE PROFILE



Large Tipper	
Overall Length	10.201m
Overall Width	2.495m
Overall Body Height	2.890m
Min Body Ground Clearance	0.341m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

0 5 10 15m

1:250

CLIENT

SHILLELAGH QUARRIES LTD

CONSULTANT

YYYY-MM-DD	2024-Dec-10
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT

PLANNING APPLICATION, SHILLELAGH QUARRY, HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

TITLE

N81 - N81 SOUTHBOUND TO I6030

PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	1206	B	1:250 A3

OSI Licence No.:
AR 0056019

Access to Shillelagh Quarries Ltd

Access to Stresslite Ltd

MAIN ENTRANCE TO QUARRY

POST & RAIL FENCE

POST & WIRE FENCE

HEDGE TOP: 256.71

HEDGE TOP: 253.83

EMBANKMENT

OTH WIRE

255.04
255.11
255.09
255.22
253.49
253.52
253.51
252.93
252.86
252.75
253.03
253.30
CL: 253.29
CL: 253.30
253.58
251.67
251.96
251.39
251.99
251.67
251.50
251.81
251.92
251.14
251.89
250.84
250.04
250.36
250.17
248.59
248.72
Large Tipper
Large Tipper

LEGEND:

Haulage Vehicle

VEHICLE PROFILE

0 5 10 15m
1:250

CLIENT
SHILLELAGH QUARRIES LTD

CONSULTANT
wsp

YYYY-MM-DD	2025-01-10
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT
PLANNING APPLICATION, SHILLELAGH QUARRY, HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

SHEET TITLE
SITE ACCESS HGV IN

PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	1207	B	1:250 A3

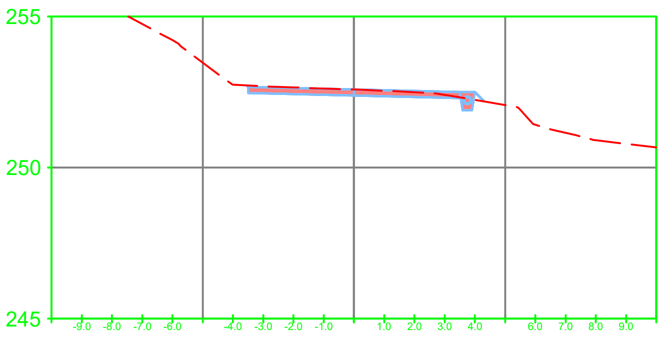
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3

25 mm

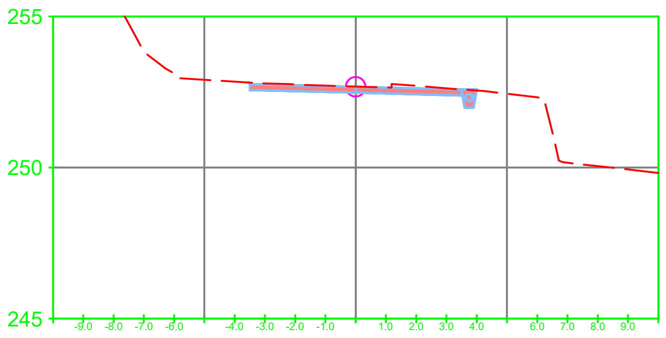
0

Path: \\corp.pbwan.net\Global\2\AlCentral_Data\Projects\41100\xx\41102437 - WSP IRE-SHILLELAGH QUARRY-CAD\41 MW\2-Tech Info\01-Current\07-Incoming\FROM DAMIAN\Visibility Splays and Picady Dimension Drawings\ | File Name: IE-0030074788 - 1207 - 1208 - Swept Path Analysis - Site In, N81 Northbound.dwg

OSI Licence No.:
AR 0056019



SECTION 1



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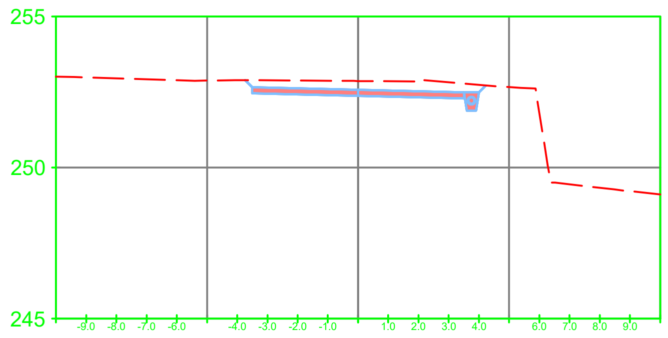
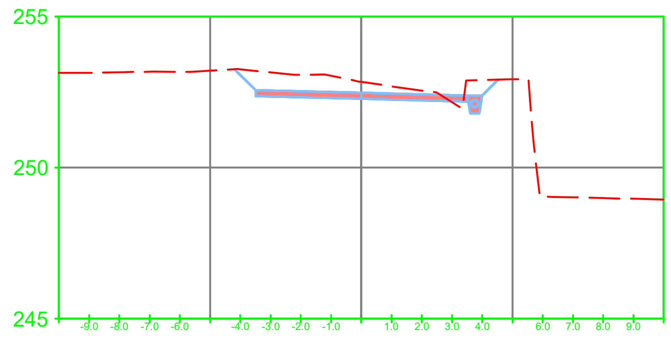


SECTION 3



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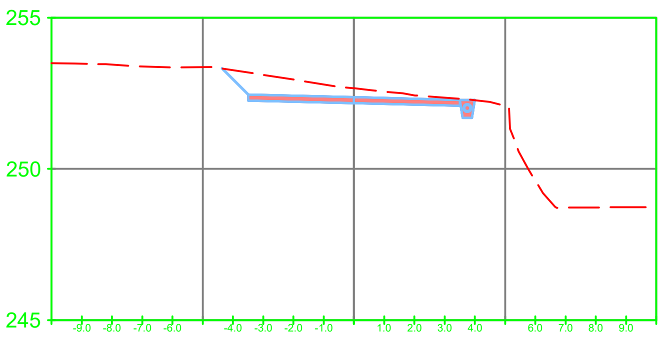

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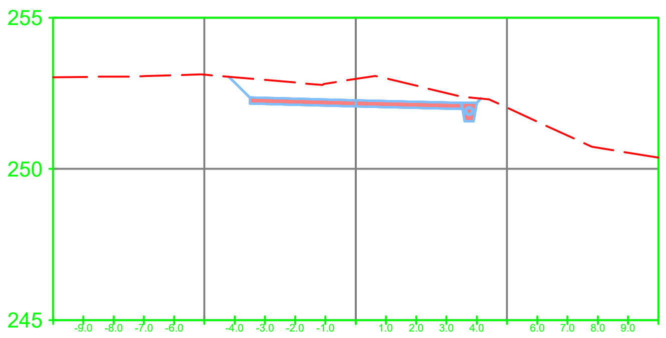
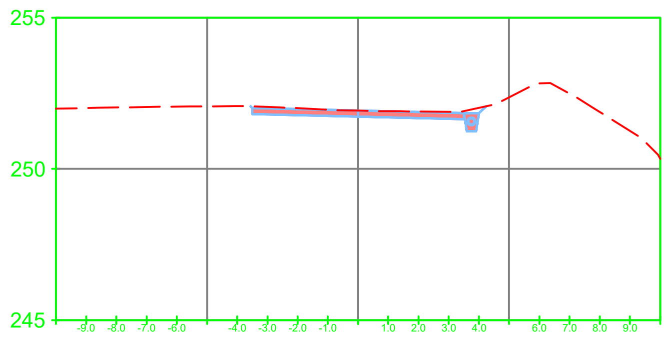


SECTION 6



SECTION 7

0 5 10 15m
1:250

CLIENT
SHILLELAGH QUARRIES LTD

CONSULTANT

YYYY-MM-DD	2025-01-15
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT
PLANNING APPLICATION, SHILLELAGH QUARRY,
HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

SHEET TITLE
ACCESS HAUL ROUTE REALIGNMENT - CROSS-SECTIONS

PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	1303	B	1:250 @ A3

OSI Licence No.:
AR 0056019

NORMAL VISIBILITY
133m

TANGENTIAL VISIBILITY
96.2m

TANGENTIAL VISIBILITY
42m

NORMAL VISIBILITY
163.3m

FORWARD VISIBILITY
377m

© Ordnance Survey Ireland/Government of Ireland

LEGEND:

- Normal Visibility
- Tangential Visibility
- Forward Visibility

0 50 100 150m
1:2,500

CLIENT
SHILLELAGH QUARRIES LTD

CONSULTANT
wsp

YYYY-MM-DD	2024-Dec-10
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT
PLANNING APPLICATION, SHILLELAGH QUARRY,
HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

TITLE
N81 VISIBILITY SPLAYS - L6030

PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	02	B	1:2500 A3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3
25 mm
0

Path: \\corp.pbwan.net\Global\2\AC\ental...Data\Projects\41100xx\x41107437 - WSP IRE,SHILLELAGH QUARRY-CAD\41 MI\02-Tech Info\01-Current\07-Incoming\FROM DAMIAN\Visibility Splays and Peaty Dimension Drawings\ | File Name: IE-0030074788 - 1200 - 1203 - Visibility Geometry.dwg

OSI Licence No.:
AR 0056019

Access to Shillelagh Quarries Ltd

Access to Stresslite Ltd

Large Tipper

HEDGE TOP: 256.71

HEDGE TOP: 253.83

255.04
255.11
256.22
253.49
253.52
253.51
252.93
252.86
251.50
251.67
251.14
251.81
251.39
248.59
248.57

LEGEND:

Haulage Vehicle

VEHICLE PROFILE

Large Tipper	
Overall Length	10.201m
Overall Width	2.495m
Overall Body Height	2.890m
Min Body Ground Clearance	0.341m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

0 5 10 15m
1:250

CLIENT
SHILLELAGH QUARRIES LTD

CONSULTANT
wsp

YYYY-MM-DD	2025-JAN-10
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT
PLANNING APPLICATION, SHILLELAGH QUARRY, HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

SHEET TITLE
SITE ACCESS HGV OUT

PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	1204	C	1:250 A3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3
25 mm
0

Path: \\corp.pbwan.net\Global\2\A\Central_Data\Projects\41100\xx\41107437 - WSP IRE-SHILLELAGH QUARRY-CAD\41 MI\02-Tech Info\01-Current\07-Incoming\FROM DAMIAN\Visibility Splays and Picady Dimension Drawings\ | File Name: IE-0030074788 - 1204 - 1205 - Swept Path Analysis - L6030 Site Out, N81 Southbound Out.dwg

OSI Licence No.:
AR 0056019

Large Tipper

Cabinet
ESB Cabinet
Cabinet
MH
CL: 212.47
IL:
SV
SV
SV

212.85
212.63
212.46
212.45
212.26
212.26
SIGN
212.14
MH
CL: 212.12
IL:
CL: 212.06
CL: 211.93
211.99
SP
CONCRETE

WALL TOP: 213.04
BLOCK WALL
WALL TOP: 213.07
EP

LEGEND:

Haulage Vehicle

VEHICLE PROFILE

Large Tipper	
Overall Length	10.201m
Overall Width	2.495m
Overall Body Height	2.890m
Min Body Ground Clearance	0.341m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

0 5 10 15m
1:250

CLIENT
SHILLELAGH QUARRIES LTD

CONSULTANT
wsp

YYYY-MM-DD	2025-JAN-10
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

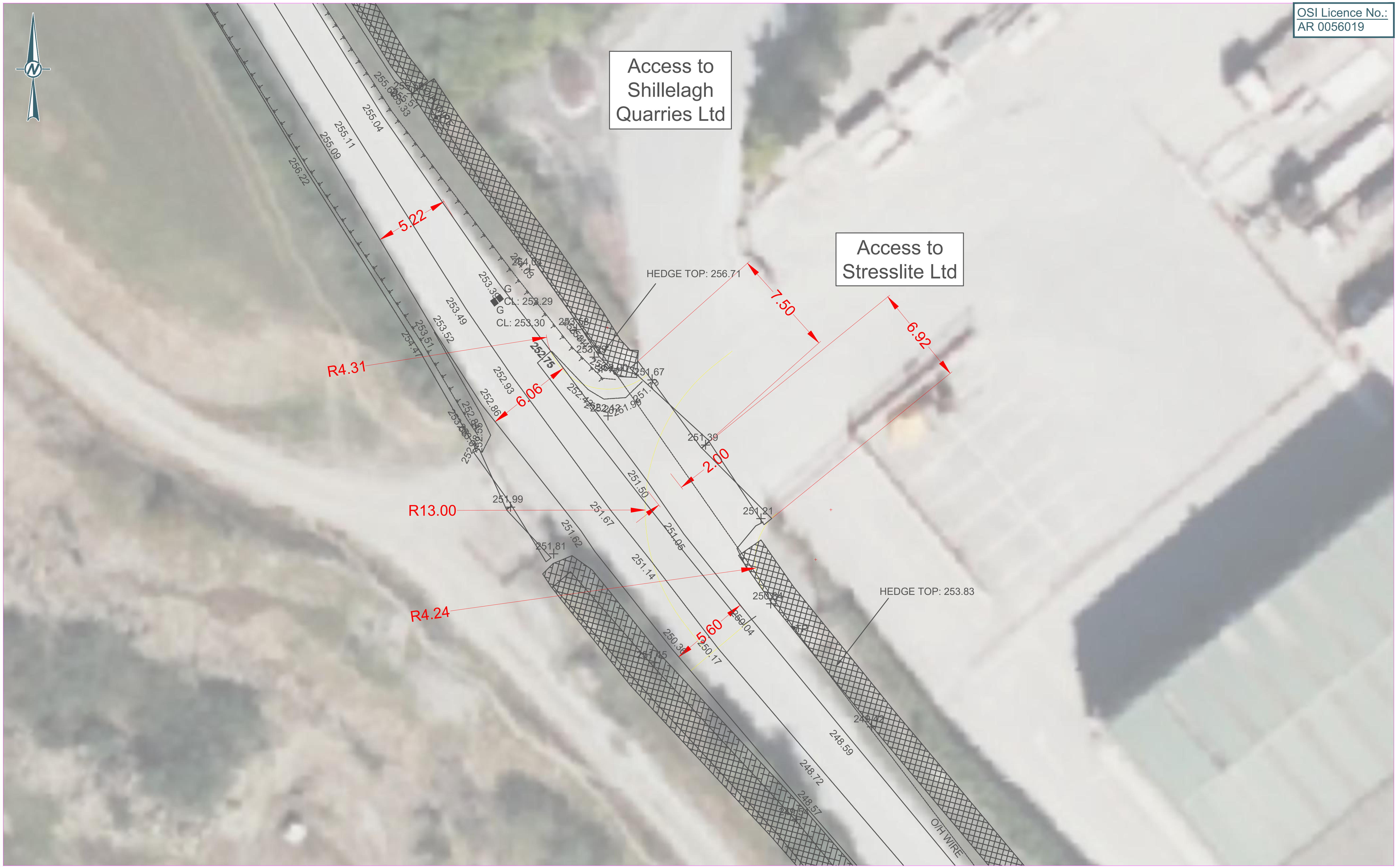
PROJECT
PLANNING APPLICATION, SHILLELAGH QUARRY,
HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

SHEET TITLE
N81 - OUT OF L6030, N81SOUTHBOUND

PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	1205	C	1:250 A3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3
0 25 mm

Path: \\corp.pbwan.net\Global\ZA\Central_Data\Projects\41100\xx\41107437 - WSP IRE-SHILLELAGH QUARRY-CAD\41 MW\2-Tech Info\01-Current\07-Incoming\FROM DAMIAN\Visibility Splays and Picady Dimension Drawings\ | File Name: IE-0030074788 - 1204_1205 - Swept Path Analysis - L6030 Site Out, N81 Southbound Out.dwg



LEGEND:		LEGEND:
Red line	Normal Visibility	Yellow line – Geometry Measurements
Magenta line	Tangential Visibility	
Blue line	Forward Visibility	

0 5 10 15m
1:250

CLIENT
SHILLELAGH QUARRIES LTD

CONSULTANT
wsp

YYYY-MM-DD	2024-Dec-10
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT
PLANNING APPLICATION, SHILLELAGH QUARRY, HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

SHEET TITLE
SITE ACCESS GEOMETRY MEASUREMENTS - L6030

PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	1202	B	1:250 A3

OSI Licence No.:
AR 0056019

POST & RAIL FENCE
Cabinet
BSB Cabinet
Cabinet
MH
CL: 212.47
IL:
SV
SV
SV
212.59
212.41
212.69
212.64
212.54
212.56
212.45
212.40
212.38
212.47
212.35
212.63
212.48
212.46
212.45
212.39
212.48
212.38
212.22
Large Tipper
212.59
212.70
212.62
212.74
RECENT ROAD RESURFACING WORKS UNDERTAKEN (INCOMPLETE)
WALL TOP: 213.04
212.30
212.37
212.25
212.24
POST & RAIL FENCE
212.26
SIGN
MH
CL: 212.12
IL:
G
CL: 212.06
212.14
212.01
211.97
212.34
212.43
212.32
DWELLING ENTRANCE
212.20
BLOCK WALL
WALL TOP: 213.01
G
CL: 211.93
212.08
211.99
SP
211.87
211.80
212.00
211.92
CONCRETE
211.92
POST & RAIL FENCE
70
85

LEGEND:

Haulage Vehicle

VEHICLE PROFILE

0 5 10 15m
1:250

CLIENT
SHILLELAGH QUARRIES LTD

CONSULTANT
wsp

YYYY-MM-DD	2024-01-10
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT
PLANNING APPLICATION, SHILLELAGH QUARRY, HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

SHEET TITLE
N81 - HGV IN AND OUT OF L6030, N81 NORTHBOUND

PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	1208	B	1:250 A3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3
25 mm
0

Path: \\corp.pbwan.net\Global\ZA\Centra\ Data\Projects\41100\xx\41107437 - WSP IRE-SHILLELAGH QUARRY-CAD\41 MM\02-Tech Info\01-Current\07-Incoming\FROM DAMIAN\Visibility Splays and Picady Dimension Drawings\ | File Name: IE-0030074788 - 1207_1208 - Swept Path Analysis - Site In, N81 Northbound.dwg

OSI Licence No.:
AR 0056019

R16.57
11.71
2.95
2.59
Cabinet
ESB Cabinet
Cabinet
MH
CL: 212.47
IL:
SV
SV
SV
212.59
212.41
213.40
213.44
213.36
213.24
212.59
212.47
212.69
212.64
212.54
212.54
212.56
212.45
212.40
212.38
212.85
212.63
212.48
212.48
212.46
212.45
212.39
212.38
4.66
2.00
212.22
R10.00
212.30
212.59
212.70
212.76
212.78
212.89
212.87
212.74
212.62
WALL TOP: 213.04
212.26
212.24
R34.02
212.26
SIGN
212.14
212.10
MH
CL: 212.12
IL:
G
CL: 212.06
212.01
212.37
212.43
212.34
212.32
211.97
14.43
212.08
212.20
EP
BLOCK WALL
WALL TOP: 213.01
G
CL: 211.93
211.87
211.99
SP
211.80
CONCRETE
212.00
211.92
211.92
70
85

LEGEND:

Normal Visibility

Tangential Visibility

Forward Visibility

LEGEND:

Geometry Measurements

0 5 10 15m
1:250

CLIENT
SHILLELAGH QUARRIES LTD

CONSULTANT
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YYYY-MM-DD	2024-Dec-10
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT
PLANNING APPLICATION, SHILLELAGH QUARRY,
HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

TITLE
N81 - JUNCTION GEOMETRY

PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	04	B	1:250 A3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3
25 mm
0

Path: \\corp.pbwan.net\Global\ZAI\Central_Data\Projects\41100\xx\41107437 - WSP IRE-SHILLELAGH QUARRY-CAD\41 MI\02-Tech Info\01-Current\07-Incoming\FROM DAMIAN\Visibility Splays and Picadly Dimension Drawings\ | File Name: IE.0030.07478 - 1200 - 1203 - Visibility Geometry.dwg

OSI Licence No.:
AR 0056019

FORWARD VISIBILITY
271m

NORMAL VISIBILITY
94.1m

TANGENTIAL VISIBILITY
78.3m

TANGENTIAL VISIBILITY
193M

NORMAL VISIBILITY
271m

LEGEND:

- Normal Visibility
- Tangential Visibility
- Forward Visibility

0 20 40 60m
1:1,000

CLIENT
SHILLELAGH QUARRIES LTD

CONSULTANT
wsp

YYYY-MM-DD	2024-Dec-10
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT
PLANNING APPLICATION, SHILLELAGH QUARRY, HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

TITLE
SITE ACCESS VISIBILITY SPLAYS - L6030

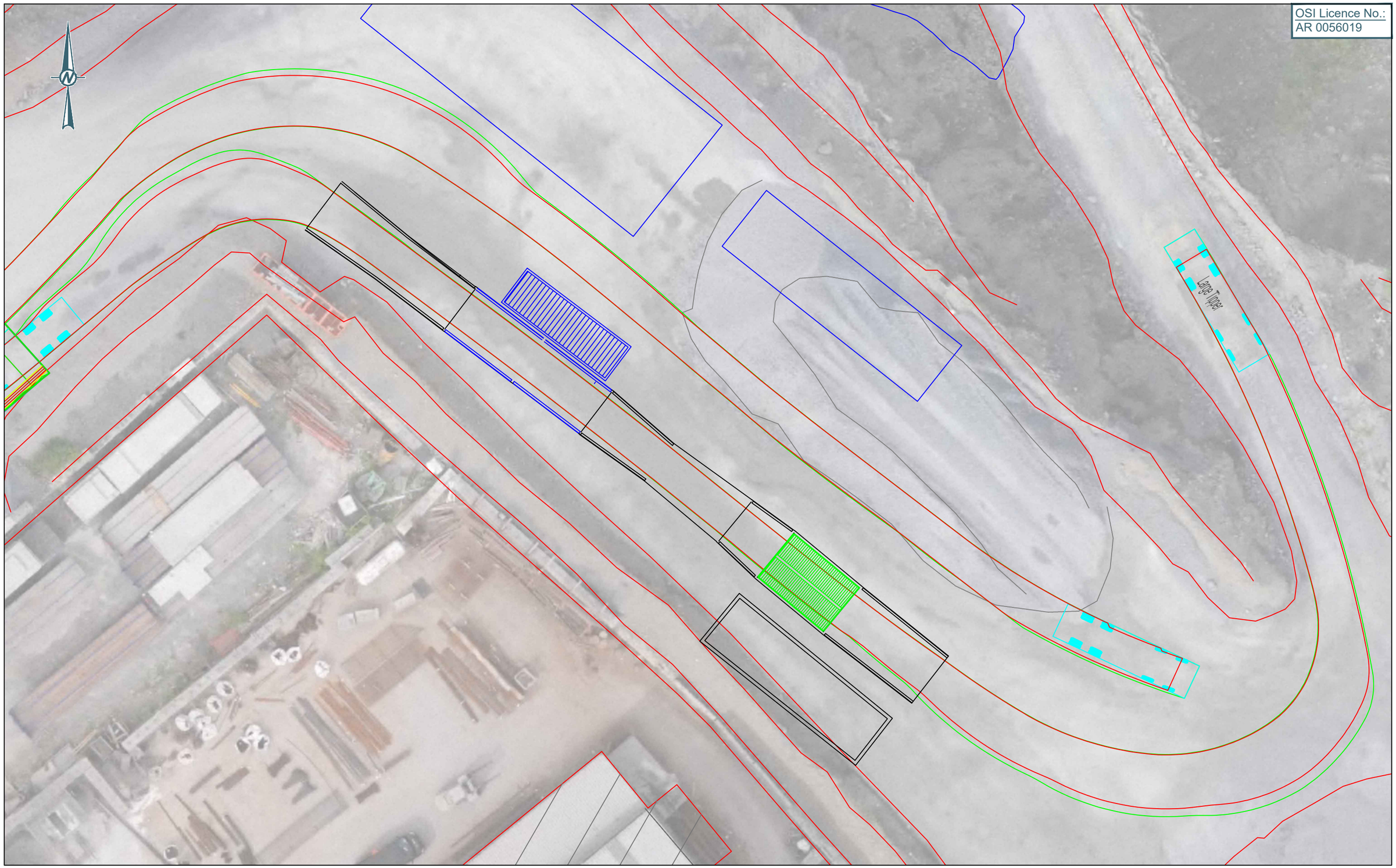
PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	01	B	1:1000 A3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3

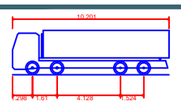
0 25mm

Path: \\corp.pbwan.net\Global\ZAV\Central_Data\Projects\41100xx\41107437 - WSP IRE-SHILLELAGH QUARRY-CAD\41 MI\02-Tech Info\01-Current\07-Incoming\FROM DAMIAN\Visibility Splays and Picady Dimension Drawings\ | File Name: IE-0030074788 - 1200 - 1203 - Visibility Geometry.dwg

OSI Licence No.:
AR 0056019



VEHICLE PROFILE



Large Tipper

Overall Length	10.201m
Overall Width	2.495m
Overall Body Height	2.890m
Min Body Ground Clearance	0.341m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

0 5 10 15m

1:250

CLIENT

SHILLELAGH QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-01-15
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT

PLANNING APPLICATION, SHILLELAGH QUARRY, HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

SHEET TITLE

ACCESS HAUL ROUTE REALIGNMENT - PROPOSED SWEPT PATH ANALYSIS

PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	1311	A	1:250 @ A3

Path: ## | File Name: S371 Proposed Haul Route_ver2.dwg

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3

0 25 mm

OSI Licence No.:
AR 0056019

Realigned haul route within applicants land ownership

Relocated parking spaces for HGV & vehicular trafic

Relocated wheelwash & weighbridge

LEGEND:

Proposed Haul Route Corridor

Existing Boundary Wall between SQL and Stresslite Precast

Extents of Land Ownership

0 10 20 30m
1:500

CLIENT
SHILLELAGH QUARRIES LTD

CONSULTANT
wsp

YYYY-MM-DD	2025-01-15
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT
PLANNING APPLICATION, SHILLELAGH QUARRY, HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

SHEET TITLE
ACCESS HAUL ROUTE REALIGNMENT - PROPOSED LAYOUT

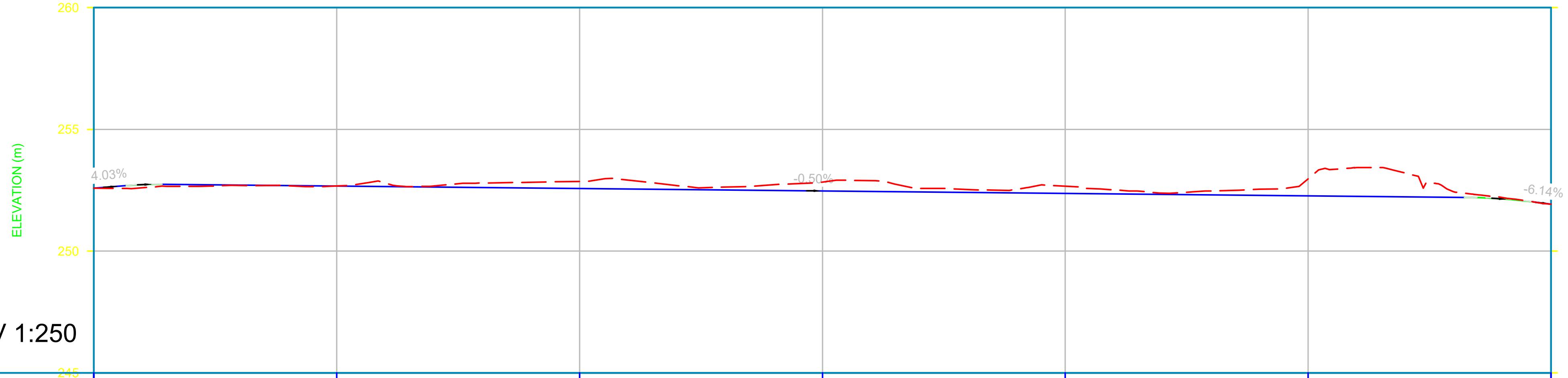
PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	1301	C	1:500 @ A3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3

0 25 mm

Path: ########## | File Name: S371 Proposed Haul Route_ver2.dwg

OSI Licence No.:
AR 0056019



SCALE H 1:500, V 1:250

PROPOSED GROUND	252.58	252.67	252.57	252.47	252.37	252.27	251.93
EXISTING GROUND	252.58	252.68	252.86	252.84	252.66	252.98	251.93
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00

CLIENT
SHILLELAGH QUARRIES LTD

CONSULTANT

YYYY-MM-DD	2025-01-15
PREPARED	DOR
DESIGN	DOR
REVIEW	KH
APPROVED	RL

PROJECT
PLANNING APPLICATION, SHILLELAGH QUARRY, HEMPSTOWN COMMONS, BLESSINGTON, Co. KILDARE

SHEET TITLE
ACCESS HAUL ROUTE REALIGNMENT - CROSS-SECTIONS

PROJECT No.	DRAWING No.	Rev.	SCALE
IE0037007.4788	1302	B	As Shown