12 Traffic and Transportation

12.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) provides an assessment of the potential traffic and transportation impacts that could result from the Proposed Project.

The Proposed Project is the restoration of disused quarry lands using clean soil and stone. The Application Site (also referred to as 'Site') includes a disused quarry void and associated historical working areas. It also includes a private access road that connects the disused quarry to the public road network, and agricultural lands to the east that road where it is proposed to locate the temporary facilities required to manage the importation of clean soil and stone required for the Proposed Project.

All lands within the Application Site and EIA Boundary are within the ownership of the Applicant, Bison Quarries Ltd (BQL).

This EIAR is submitted in support of an application under Section 37L of the Planning and Development Act 2000, as amended.

The following assessment was prepared by Kevin Harley CEng MIEI – a qualified Civil Engineer graduating from Queens University Belfast with a BEng (Hons) degree. Kevin has over 20 years postgraduate experience across Highways Engineering with more recent working on Traffic Engineering.

12.1.1 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) may have had on the traffic and transport infrastructure (the existing road network).

This chapter will examine the potential traffic implications associated with the restoration of the Site. Calculating the quantity of fill required to fill the void will inform the number of vehicles generated to/from the Site and in turn allow an assessment of how the existing road network is impacted.

An initial assessment will determine the increase in traffic generated by the Proposed Project and how it compares with recognised acceptability thresholds, which will inform whether further junction capacity analyses of critical junctions are required.

12.1.2 Geographical and Temporal Scope

The geographical extent of this study for the assessment covers the area within the EIA boundary (shown in Figure 12-1) and the connected existing public road network proposed to be utilised by the Proposed Project. All lands within the Application Site (shown by the 37L Application Boundary in Figure 12-1.) are located within the EIA Boundary.

The temporal scope of the assessment is determined by the infilling activities in the construction phase, which is estimated to be at least 8 years; however, to allow for any reduced import rates due to potential downturn in construction, we have extended the construction phase to 10 years as a ‘worst case scenario –subsequently referred to as the ‘review/assessment period’. Intermediate assessment years will include “Year of Opening”, “Year of Opening + 5” and a sensitivity analysis at “Year of Opening + 10”, which may occur should the rate of infilling be less than anticipated.

The importing of materials will be referred to as the construction phase and once complete will be followed by a restoration phase, which will involve capping the inert material with imported topsoil. The number of vehicles generated during this restoration phase are expected to be much less than during construction phase and so have been scoped out of detailed analysis.

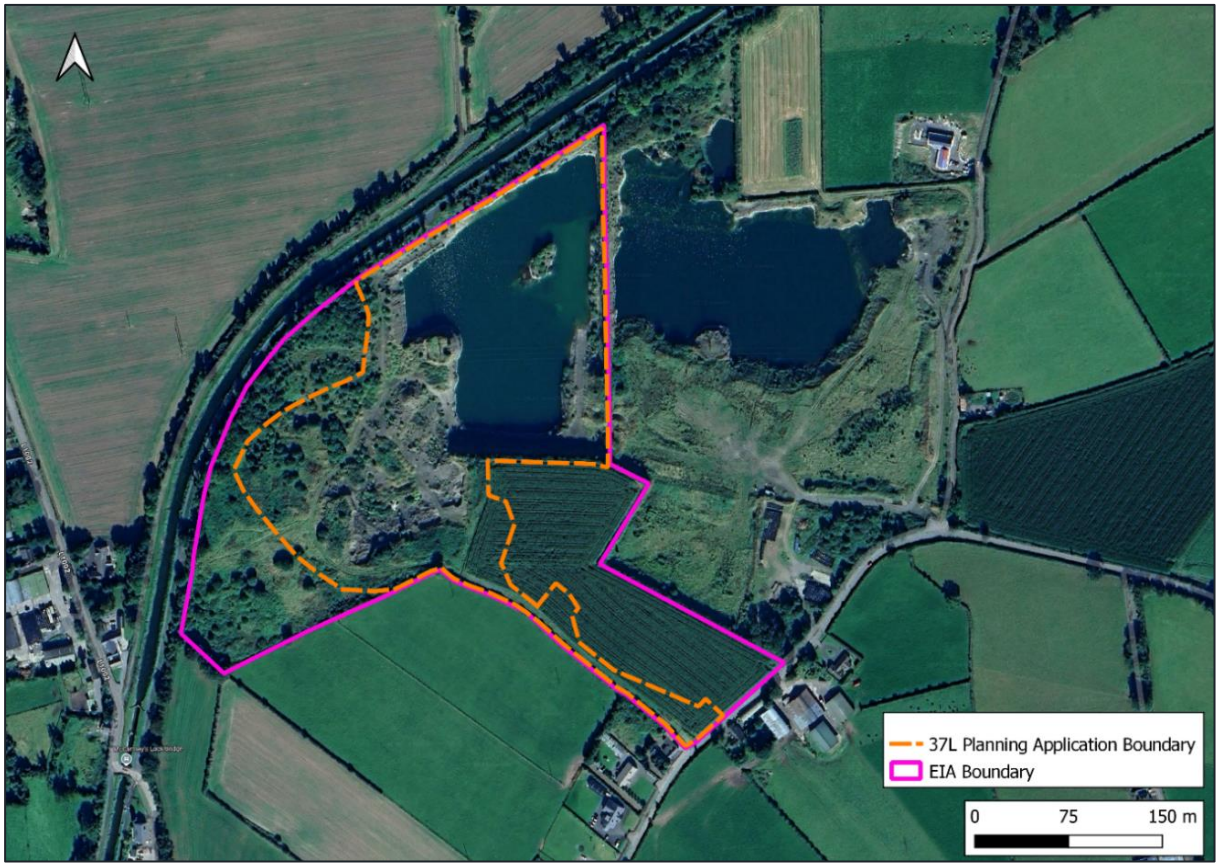


Figure 12-1 - EIA Boundary and 37L Application Boundary

12.1.3 Project Description Summary

The Proposed Project consists of the restoration of lands through the import of approximately 720,000 tonnes clean soil and stone as by-product (non-waste) from development sites to infill a disused historical quarry and raise ground levels to tie in with ground levels of surrounding land.

Restoration of the lands will be to agricultural grassland, an artificial waterbody, and a hedgerow habitat with the lands returned to their pre-extraction agricultural use.

The proposed duration of infilling is 10 years depending on market conditions for the anticipated acceptance of clean soil and stone, and a further 3 years for the completion of final restoration activities.

The Application Site is located in the townland of Coolsickin or Quinsborough, Co Kildare. The Application Site is accessed by a privately-owned access road connecting to a local road (L7049).

The following temporary facilities will be installed and maintained during the life of the Proposed Project:

- office and fully serviced welfare facilities;
- weighbridge and associated portacabin;
- closed-system wheel wash;
- 6 no. parking bays;
- 2 no. waste inspection bays and 1 no. bunded waste quarantine area;
- hardstanding area (vehicle movement and storage);
- surface water drainage infrastructure from hard standing and discharge to ground, including 2 no. interceptors and 2 no. soakaways;
- Security features, including security gates and fencing; and.
- Power supply. It is intended that approval will be sought for a connection to the ESB Network for the office and fully serviced welfare facilities. Diesel generators will be used to power mobile lighting, if required.

The Proposed Project site entrance and private access road will be upgraded and realigned. These will be retained following to completion of the Proposed Project.

A full project description in provided in Chapter 2 of this EIAR.

12.2 Policy and Legislation Context

This section addresses the legislation and guidance that has been considered when preparing this chapter. The overarching EIAR legislation under which this assessment is required is addressed separately in Chapter 1 (Introduction, Scope and Methodology).

12.2.1 Legislation

This assessment has been made with cognisance to relevant legislation, including but not limited to:

- European Union Directive 2011/92/EU as amended by Directive 2014/52/EU – these Directives required that certain private and public projects which are likely to have significant resultant environmental impacts are subject to a formalised Environmental Impact Assessment prior to their consent; and,

- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296 of 2018) which amended the Planning and Development Act, 2000, and the Planning and Development Regulations, 2001. The 2014/52/EU Directive was transposed into Irish law through this Directive.

12.2.2 Relevant Policies and Plans

The Kildare County Development Plan 2023-2029 was adopted on 09 December 2022. The key policies and objectives of this plan are listed in Section 2.9.4 of the Project Description (Chapter 2).

12.2.3 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);
- "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 retrospective EIAR ('rEIAR') Traffic Chapter of Substitute Consent submission for the same Site;
- Establishment of existing traffic flows at beginning of review/assessment period i.e. 15th October 2019
- Trip Generation and Trip Assignment – This has been used to derive the expected increase in vehicle trips associated with the proposed operation of the Site. The analysis undertaken has estimated the trip generation of the Site over a 10-hour period, based on forecasted infill. Trips generated by the Site have been assumed to be all distributed via the L7049/R414 junction with distributions at this point following by existing traffic movements through the junctions;
- Calculation of flow increase through key links and junctions;
- Localised Junction Modelling – assess the expected performance of the junction associated with the expected increase in site traffic in terms of both capacity and queueing as resulting from continued operation; and
- Determination of final significance of effects in accordance with criteria in the EPA's Guidelines on the Information to be Contained in EIARs (EPA, 2022).

12.3.2 Assumptions

- Vehicles to be used for material transport are assumed as a worst case, being 4 axle hauling vehicles with capacity for 20 tonnes of material due to impact on roads maintenance scheduling by roads authorities;

- Hours of operation will be 07:30 to 17:30 Monday to Friday and 07:30 to 14:00 on Saturdays. There will be no working on Sundays or Bank/Public Holidays.
- Trips generated are assumed as evenly spread across the year and evenly throughout the day;
- Traffic growth is taken from TII Publications Unit 5.3 – Travel Demand Projections, PE-PAG-020171. Rates will be assumed to be central growth HVs in line with types of vehicles generated and location.
- It is envisaged that HGVs will travel to and from the Site east along the L7049 to join the R414 to access regional routes.

12.4 Baseline Conditions

The Application Site in the townland of Coolsickin or Quinsborough, Co. Kildare. Access to the Application Site is via the R414 Regional Road, and the L7049 local road. Regionally, the nearest towns are Monasterevin, which is located approximately 2.7 km south-west Application Site and approximately 9 km west of Kildare town. Beyond this there are several other towns located along the M7 with the suburbs of Dublin further afield. Historically, sand, gravel and rock was extracted and processed in the north section of the Application Site until that quarry ceased operations in 2006. The south section of the Site is used for agricultural purposes and includes a private access road linking the lands within the Application Site to the public road network (see Figure 12-2 and Figure 12-3). Three main land uses have been identified surrounding the Site, these are agricultural lands, single dwelling residential lands, and the L7049 road. The Grand Canal runs north out of Monasterevin and bounds the Site parallel to the north and north-western boundary of the Application Site and EIA Boundary. North of the canal are agricultural lands.

Figure 12-2 - Junction Locations

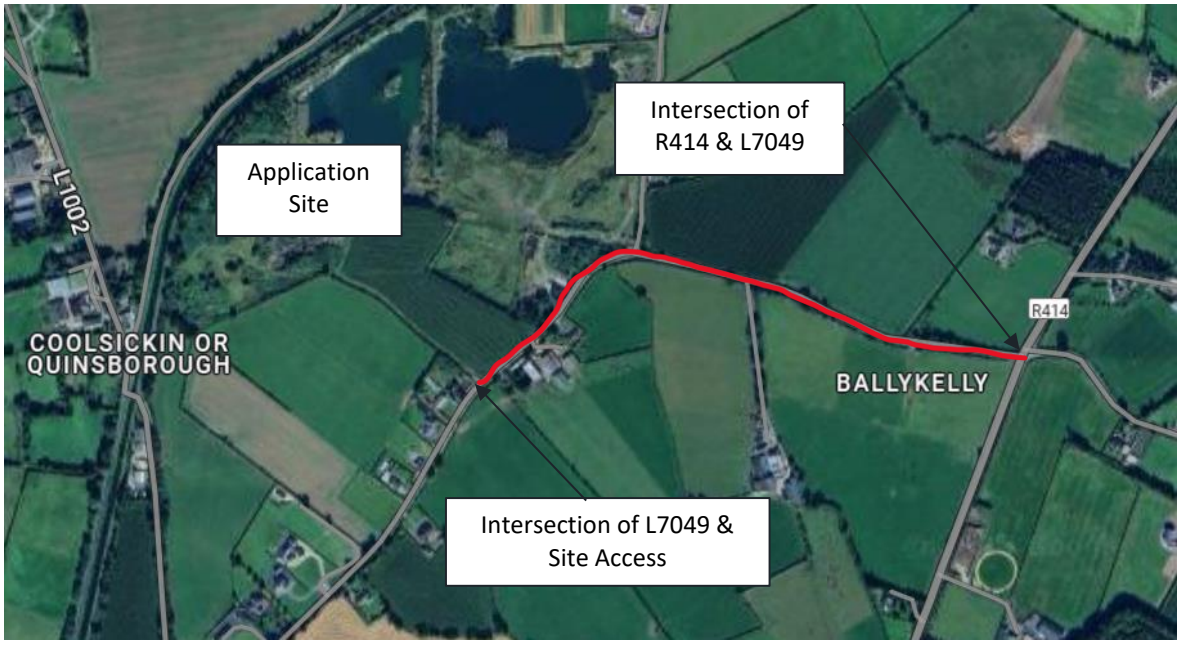


Figure 12-3 - Haul Route between R414 and Site Access

Google Streetview of each arm for both the junction identified above have been presented in Figures 12-4 to 12-10.

Figure 12-4 - Site Access/L7049 Junction – L7049 (S) Arm (Google Maps Image – May 2023)

Figure 12-5 - Site Access/L7049 Junction - Site Access Arm (Google Maps Image – May 2023)

Figure 12-6 - Site Access/L7049 Junction - L7049 (N) Arm (Google Maps Image – May 2023)

Figure 12-7 - L7049/R414/L7012 Junction - L7049 Arm (Google Maps Image – May 2023)

Figure 12-8 - L7049/R414/L7012 Junction - R414 (S) Arm (Google Maps Image – May 2023)

Figure 12-9 - L7049/R414/L7012 Junction - L7012 Arm (Google Maps Image – May 2023)

Figure 12-10 - L7049/R414/L7012 Junction - R414 (N) Arm (Google Maps Image – May 2023)

12.4.1 Primary Access Route Roads

12.4.1.1 The R414

The R414 is a Regional Road, approximately 25 km in length, which adjoins the R401 within the town of Rathangan in the north and terminates at the intersection of the R445 within the town of Monasterevin in the south. Within the rural sections between the two towns, the road is a two-way single carriageway measuring approximately 6.0 m (Type 3 Single).

In the vicinity of the proposed access route through Ballykelly Cross, the R414 offers optimum forward sight distance along a relatively straight stretch of the road in both the horizontal and vertical planes; however, visibility splays from both minor arms are below standard and therefore, overtaking along this stretch of the R414 is prohibited.

There are no footpath or pedestrian crossing provisions along the Ballykelly Cross section of the R414 with no bus service allocated along the route.

12.4.1.2 The L7049

The L7049 is a local road in Kildare travelling north to south from its junction with the R414 through the townlands of Ballykelly, Coolsickin or Quinsborough, Milfarm, Oldgrange until its intersection with the R424 in the town of Monasterevin. The road is a single carriageway road, approximately 5m wide with an 80km/h speed limit, although a reduction to a default speed limit of 60 km/hr is currently being implemented. The section of the road used as access/egress route (approximately 800 m west of Ballykelly Cross) includes negligible verge widths beyond the road edge with hedged/fenced field boundary directly adjoining much of the route. There are intermittent clearances at agricultural and residential accesses, which are currently used as informal passing bays for vehicular traffic. A proportion of the access route (500 m west of Ballykelly Cross) offers acceptable forward sight distances in both directions that allows two vehicles to avail of these informal bays; however, the section between the access to the adjoining quarry and the proposed site access (approximately 300 m) presents some challenges in terms of forward sight distances, with a more varied horizontal alignment and a fewer number of agricultural/residential accesses.

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 unavailable at the time of writing.

12.4.3 Existing Traffic Flows

To establish existing travel habits in the vicinity of the Proposed Project, 12-Hour classified turning counts were carried out at two locations – the proposed site access & Ballykelly Cross. For the site access, a new survey was carried out on 11 September 2024, whilst

Ballykelly Cross had been previously surveyed on 15 October 2019. The traffic counts within the latter survey have been adjusted using the traffic growth factors included in "PE-PAG02017 - Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections to align them with the site access survey. The counts took place between the hours of 07:00 and 19:00 hours, which covered not only the hours of operation of the Site 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. A summary of traffic surveys has been provided overleaf in Table 12-1 (site access/L7029 junction) and Table 12-2 (Ballykelly Cross junction). Full details of all traffic surveys and baseline traffic flows are included in Appendix 12A.

Table 12-1 - Traffic Survey Results, Site Access/L7029 junction – Passenger Car Units

Hour Ending	L7029 North	L7029 South	Site Access
8:00	7.0	7.0	0.0
9:00	13.5	13.5	0.0
10:00	19.5	19.5	0.0
11:00	10.0	10.0	0.0
12:00	14.0	14.0	0.0
13:00	10.2	10.2	0.0
14:00	13.5	13.5	0.0
15:00	21.3	21.3	0.0
16:00	15.5	15.5	0.0
17:00	21.0	21.0	0.0

Hour Ending	L7029 North	L7029 South	Site Access
18:00	20.5	20.5	0.0
19:00	34.5	34.5	0.0
Period Total	200.5	200.5	0.0
Period Total HGV	39.9	39.9	0.0
% HGVs	19.9%	19.9%	0.0%

AM Peak: 09:00 – 10:00, PM 18:00 – 19:00

Table 12-2 - Traffic Survey Results, Ballykelly Cross junction – Passenger Car Units

Hour Ending	L7029	R414 North	L7012	R414 South
08:00	6.0	173.3	7.3	172.6
09:00	28.6	266.7	16.3	262.4
10:00	32.0	211.5	25.6	205.1
11:00	26.1	147.3	23.9	145.7
12:00	30.8	179.5	17.0	170.3
13:00	48.3	175.6	17.0	155.5
14:00	24.3	128.4	14.0	120.1
15:00	29.9	167.8	16.0	164.5
16:00	20.9	210.9	10.3	204.9
17:00	29.8	268.5	19.6	268.3
18:00	28.6	293.3	13.0	279.7
19:00	26.3	215.5	13.0	202.2
Period Total	331.6	2438.3	193.0	2351.3
Period Total HGV	59.6	365.3	23.0	347.1
% HGVs	18.0%	15.0%	11.9%	14.7%

AM Peak: 09:00 – 10:00, PM 17:00 -18:00

12.4.4 Traffic Growth

As mentioned above traffic growth rates have been utilised as per Table 6.2 of TII Guidance – "Project Appraisal Guidelines for National Roads, Unit 5.3 – Travel Demand Projections". These rates have been used in two instances – firstly to convert the 2019 traffic counts at Ballykelly Cross up to 2024 levels (Figure 12-3) and then to forecast traffic flows for future assessment years (Figure 12-4). A low growth rate for light vehicles has been applied in this case on the basis that the R414 is not an arterial route to the greater Dublin area and so will not experience growths that the nearby R445 or R401 might do with commuters.

Table 12-3 - Traffic Growth Rates to convert Ballykelly Cross Surveys to Present Day Figures

Year	Annual Growth Rate (Kildare, LV, 2016-2030)	Cumulative Growth Rate
2019	1.0180	-
2020	1.0180	1.0180
2021	1.0180	1.0363
2022	1.0180	1.0550
2023	1.0180	1.0740
2024	1.0180	1.0933

Table 12-4 - Traffic Growth Rates for Future Forecasts

Year	Annual Growth Rate (Kildare, LV, 2016-2030 & 2030-2040)	Cumulative Growth Rate
2024	1.0180	-
2025	1.0180	1.0180
2026 (Year of Opening)	1.0180	1.0363
2027	1.0180	1.0550
2028	1.0180	1.0740
2029	1.0180	1.0933
2030	1.0062	1.1000

Year	Annual Growth Rate (Kildare, LV, 2016-2030 & 2030-2040)	Cumulative Growth Rate
2031	1.0062	1.1069
2032	1.0062	1.1138
2033 (8 years after opening	1.0062	1.1207
2034	1.0062	1.1276
2035	1.0062	1.1346
2036	1.0062	1.1417

The “Traffic and Transportation Assessment Guidelines” published by Transport Infrastructure Ireland recommend the assessment of traffic in the Opening year, for the Opening Year +5 years and the Opening Year +15 years; however, given that the Proposed Project includes a scenario where a construction phase may extend to 10 years, this period is to be considered.

12.4.5 Trip Generation

Chapter 2 of this EIAR gives an overview of the Proposed Project that is the subject of this assessment. The proposals provide for restoration of a disused quarry that will require import of up to 720,000 tonnes of clean soil and stone from construction/demolition. This clean soil and stone will fill the quarry void and surrounding working areas created by historical extraction activities at the Application Site.

12.4.5.1 Material Import Trips

Based on the above estimations of material import rates are calculated below in Table 12-5, which have been further extrapolated on the assumptions that during the construction phase, the Proposed Project is operational for 50 weeks of the year, 5 days per week (half day on Saturday) and 10 hours per day. It has also been assumed that capacities for typical tipper lorries using the Site will be 20 tonnes.

Whilst the maximum capacity of the existing quarry void has been calculated to be 720,000 tonnes, there is a limit of 100,000 tonnes per annum, giving the construction phase a duration of 8 years operating at full capacity, which presents the highest generated trip intensity. Table 12-6 provides a breakdown of trips generated by the Proposed Project. A reduced operating capacity will extend this construction period to ten years; however to ensure a robust assessment, it is assumed that the trip rates identified below extend into these two additional two years

Table 12-5 - Estimated Breakdown of Trip Rates per Day

Year	Est. Annual Material Import (Tonnes)	Est. Weekly Material Import (Tonnes)	Est. Daily Material Import (Tonnes)	Estimated Daily Trips (arrivals & departures)	Estimated Hourly Trips (arrivals & departures)
2026	100,000	2,000	364	36	4
2027	100,000	2,000	364	36	4
2028	100,000	2,000	364	36	4
2029	100,000	2,000	364	36	4
2030	100,000	2,000	364	36	4
2031	100,000	2,000	364	36	4
2032	100,000	2,000	364	36	4
2033 (Q1)	20,000	2,000	364	36	4

Whilst the calculations above indicate that the average number of trips generated by the Proposed Project will be 4 no. arrivals and 4 no. departures, with occasional spikes to no more than 6 arrivals and departures per hour.

12.4.5.2 Staff/ Visitor Trips

As indicated in Chapter 2 of this EIAR, the car parking provision for the Proposed Project will include up to 6 no. vehicles (3 no. operatives and 3 no. visitors) all of which are expected to be generated in the first and last hour of the Proposed Project working hours and will align alongside the peak periods.

12.4.5.3 Miscellaneous Trips

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

12.4.5.4 Derived Trip Rates

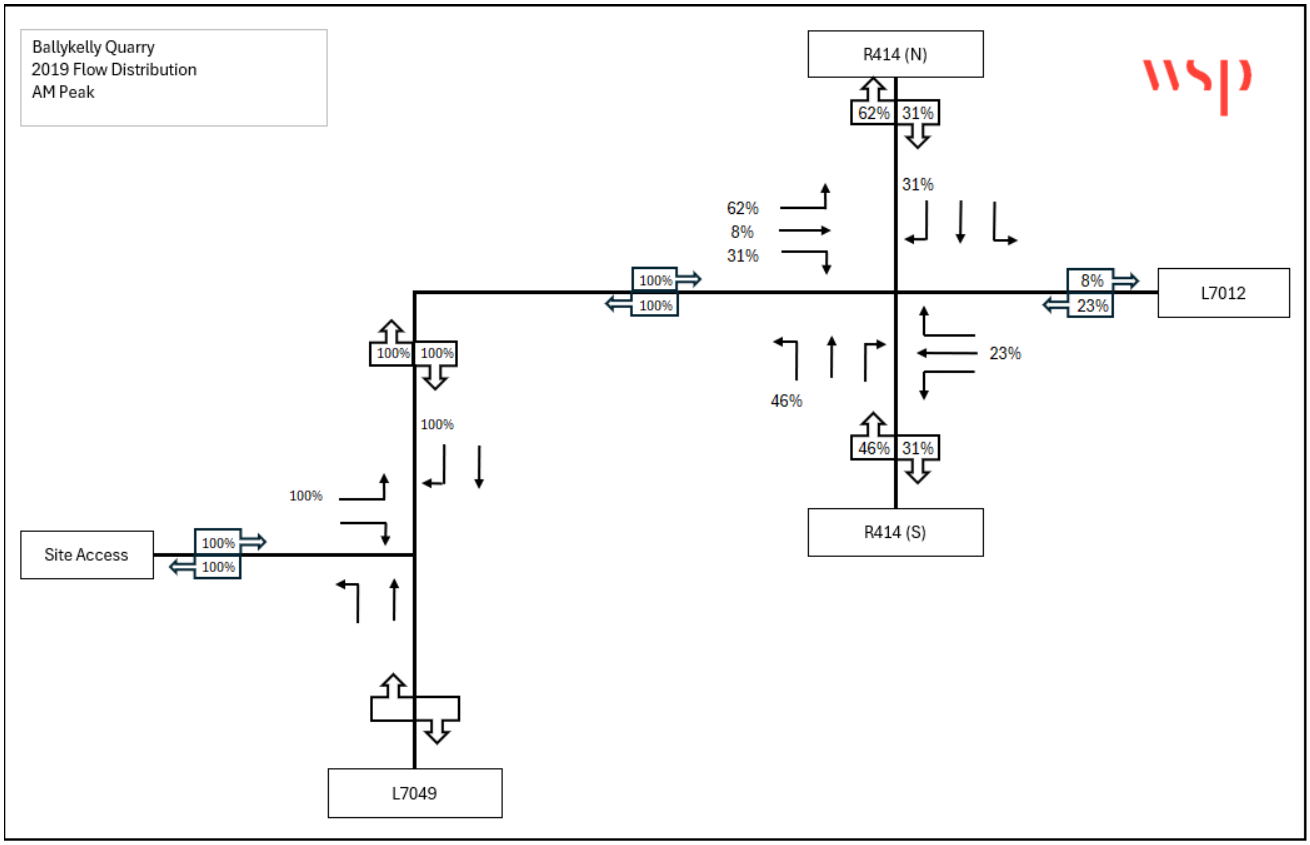
Table 12-6 below summarises the daily and peak hour arrivals/departures to be included in this assessment.

Table 12-6 - Daily and Peak Hour Trips

Source of Generated Trip	Peak Hour Arr		Peak Hour Dep	
Material Import	6	6	6	6
Staff/Visitors	6	-	-	6
Miscellaneous	2	2	2	2
Total	**14**	**8**	**8**	**14**

12.4.5.5 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 12-11 overleaf with total generated flows confirmed in Figure 12-12.



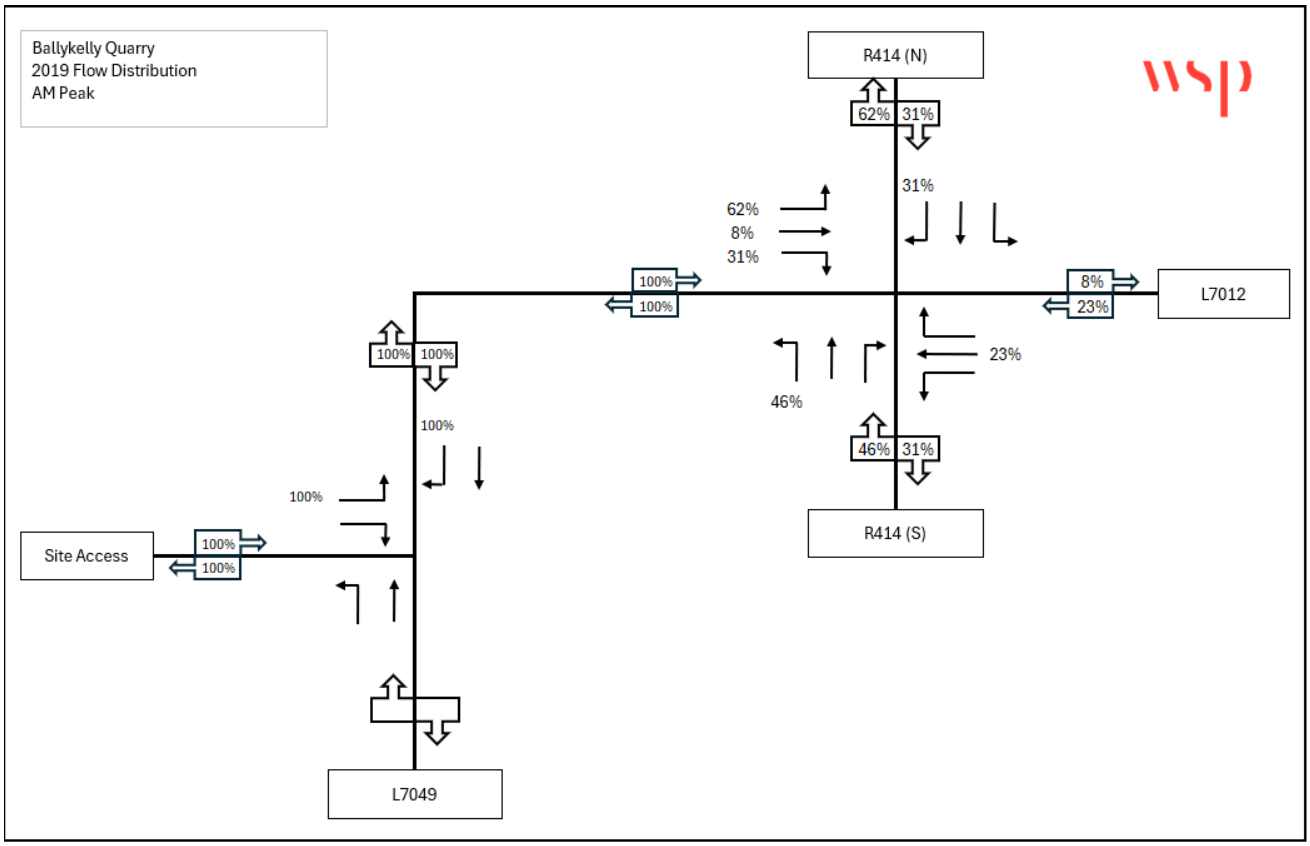


Figure 12-11 - Surveyed Flow Distribution across AM & PM Peaks

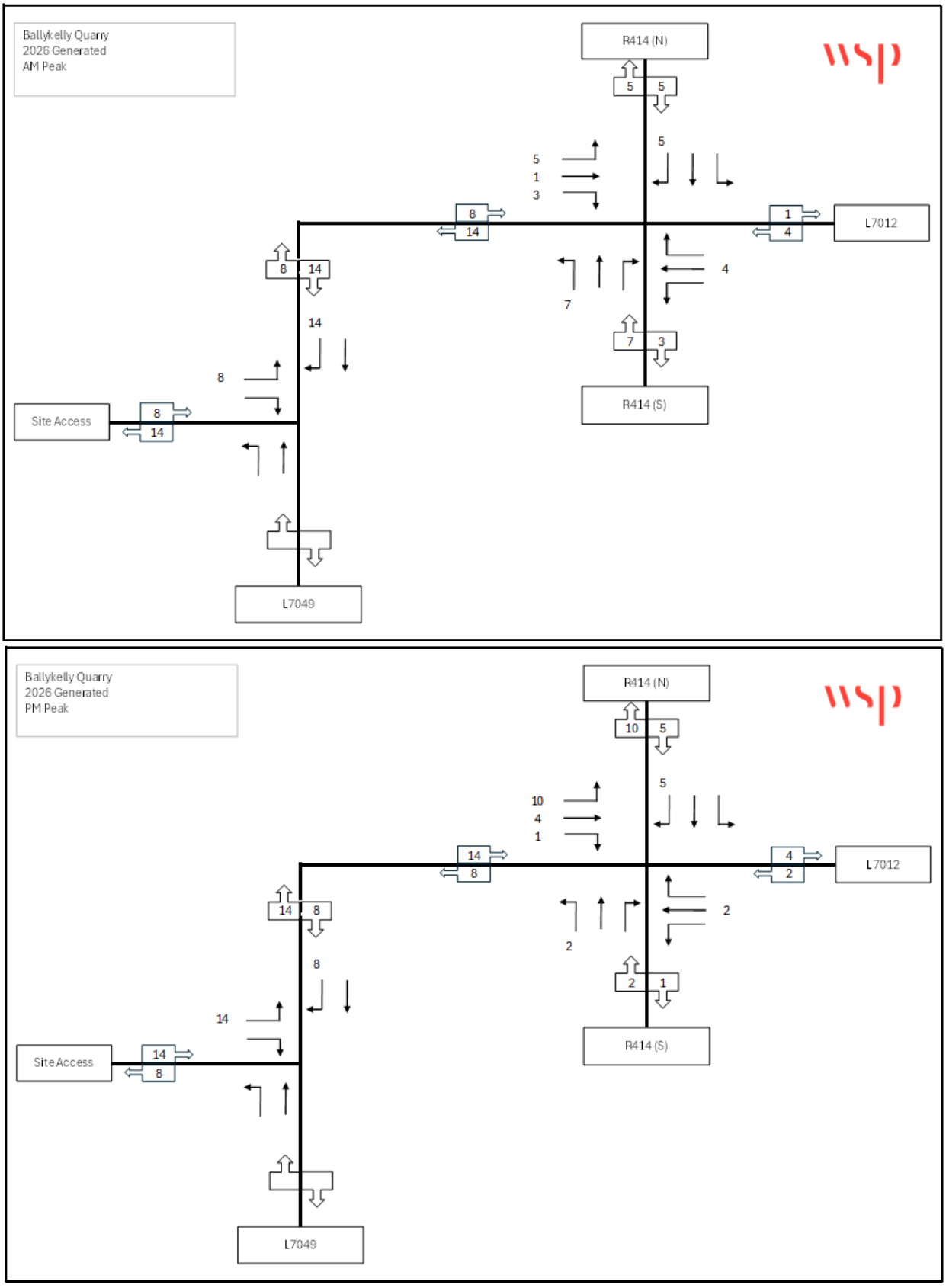


Figure 12-12 - Generated Flows across AM & PM Peaks

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.

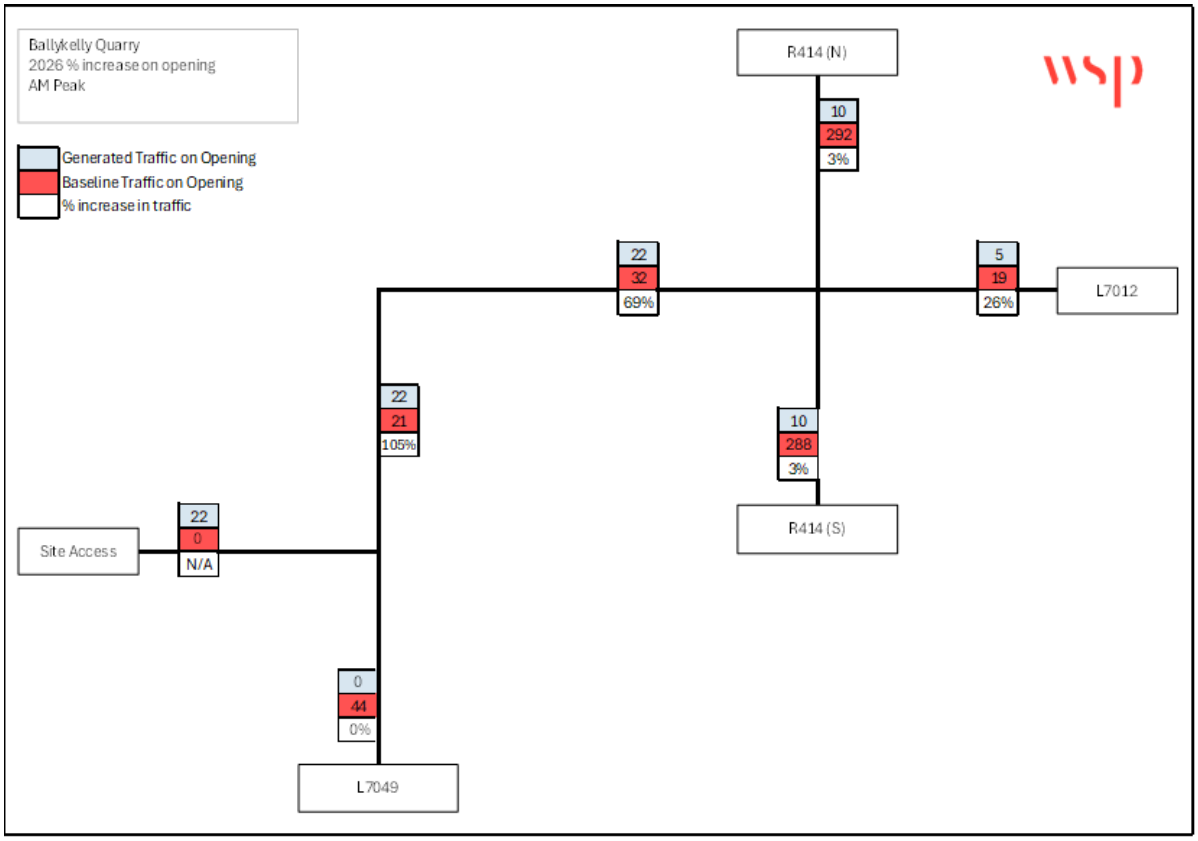
Table 2.1 of the above document together with the “Traffic Management Guidelines” (Department of Transport, 2003) include several key thresholds beyond which incur additional assessments, namely the following:

- 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 12.13 overleaf indicates the percentage increase in flows through each junction during the construction phase in the AM & PM peaks. For both junctions, the 10% threshold is exceeded and therefore requires more in-depth analyses of junction capacity.



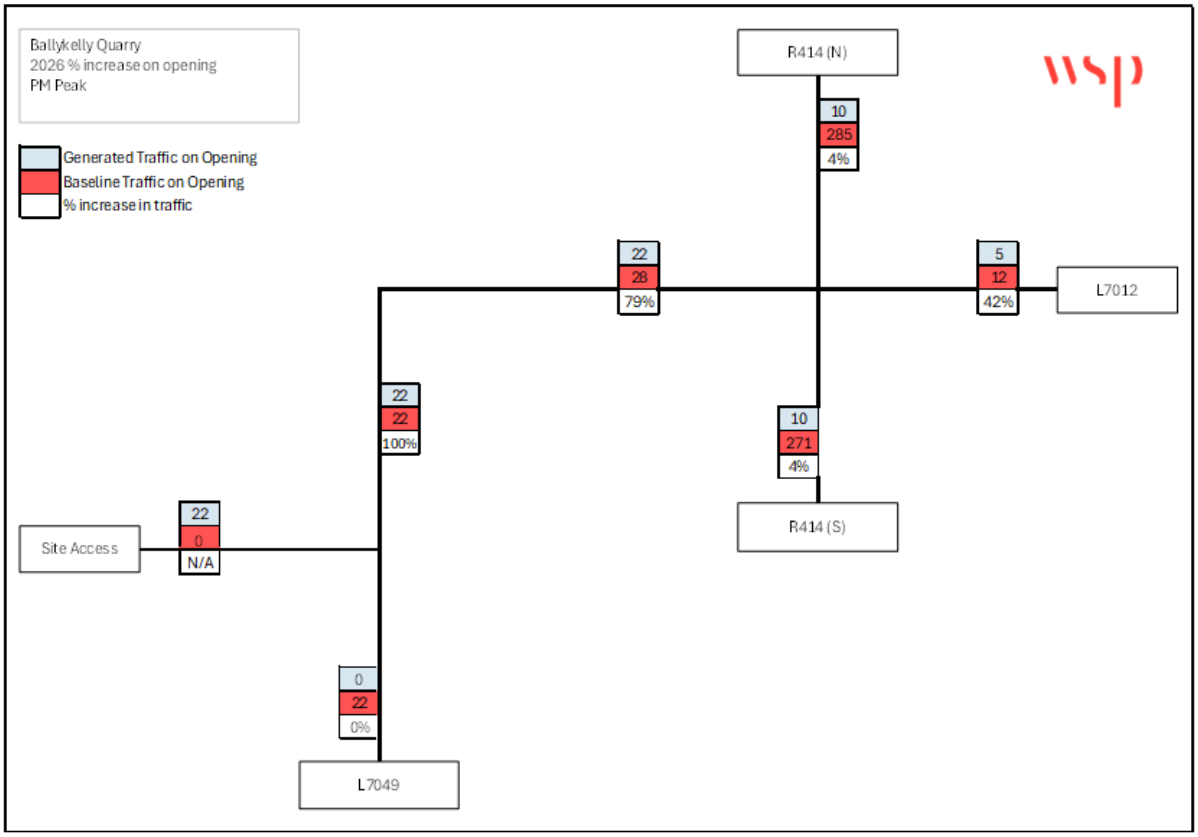


Figure 12-13 - Impact of Generated Traffic on Existing Roads Network

12.5.1.2 Junction Capacity Analysis

PICADY models have been built for various time-based scenarios as indicated below and include existing baseline and generated traffic flows referred to previously. Tables 12-7 & 12-8 below confirm three key criteria for both the L7049/site access junction as well as the L7049/R414/L7012 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 12-7 - PICADY Analysis – L7049/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)	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
2031 Baseline	Site Access L6030 (South)	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
2033 Baseline	Site Access L6030 (South)	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
2036 Baseline	Site Access L6030 (South)	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
2026 Baseline + Generated	Site Access L6030 (South)	~1 0.5	0.5 0.5	0.00 5.98	4.80 5.91	0.00 0.01	0.01 0.01
2031 Baseline + Generated	Site Access L6030 (South)	~1 0.5	0.5 0.5	0.00 5.97	4.80 5.90	0.00 0.01	0.01 0.01
2033 Baseline + Generated	Site Access L6030 (South)	~1 0.5	0.5 0.5	0.00 5.97	4.80 5.90	0.00 0.01	0.01 0.01
2036 Baseline + Generated	Site Access L6030 (South)	~1 0.5	0.5 0.5	0.00 5.97	4.80 5.90	0.00 0.01	0.01 0.01

Table 12-8 - PICADY Analysis L7049/R414/L7012 junction

Assessment Scenario	Arm	95th %tile queue length (vehs)		Delay (s)		RFC	
		AM	PM	AM	PM	AM	PM
2026 Baseline	L7012 R414 (North)	0.5 0,5	0.5 0.5	6.17 5.82	6.40 5.86	0.02 0.01	0.01 0.02

Assessment Scenario	Arm	95th %tile queue length (vehs)		Delay (s)		RFC	
		AM	PM	AM	PM	AM	PM
	L7049 R414 (South)	0.5 0.5	0.5 ~1	5.91 5.78	5.86 0.00	0.03 0.00	0.03 0.00
2031 Baseline	L7012 R414 (North) L7049 R414 (South)	0.5 0,5 0.5 0.5	0.5 0.5 0.5 ~1	6.22 5.79 5.96 5.74	6.46 5.83 5.91 0.00	0.02 0.01 0.03 0.00	0.01 0.02 0.03 0.00
2033 Baseline	L7012 R414 (North) L7049 R414 (South)	0.5 0,5 0.5 0.5	0.5 0.5 0.5 ~1	6.23 5.79 5.97 5.74	6.47 5.83 5.91 0.00	0.02 0.01 0.03 0.00	0.01 0.02 0.03 0.00
2036 Baseline	L7012 R414 (North) L7049 R414 (South)	0.5 0,5 0.5 0.5	0.5 0.5 0.5 ~1	6.25 5.78 5.99 5.73	6.49 5.82 5.94 0.00	0.02 0.01 0.04 0.00	0.01 0.02 0.04 0.00
2026 Baseline + Generated	L7012 R414 (North) L7049 R414 (South)	0.5 0,5 0.5 0.5	0.5 0.5 0.5 ~1	6.35 5.84 6.06 5.77	6.51 5.88 6.00 0.00	0.02 0.01 0.04 0.00	0.02 0.02 0.04 0.00
2031 Baseline + Generated	L7012 R414 (North) L7049 R414 (South)	0.5 0,5 0.5 0.5	0.5 0.5 0.5 ~1	6.40 5.81 6.12 5.73	6.57 5.85 6.06 0.00	0.02 0.02 0.04 0.00	0.02 0.02 0.02 0.05
2033 Baseline + Generated	L7012 R414 (North) L7049 R414 (South)	0.5 0,5 0.5 0.5	0.5 0.5 0.5 ~1	6.41 5.81 6.12 5.73	6.58 5.84 6.07 0.00	0.02 0.02 0.04 0.00	0.02 0.02 0.05 0.00
2036 Baseline + Generated	L7012 R414 (North) L7049 L7012 R414 (North)	0.5 0,5 0.5 0.5	0.5 0.5 0.5 ~1	6.42 5.80 6.13 5.72	6.60 5.84 6.09 0.00	0.03 0.02 0.04 0.00	0.02 0.02 0.05 0.00

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 0.05.

12.5.1.3 Assessment of Significance – Infrastructure Network Impacts

Traffic generated during the construction period will arrive/depart evenly across the day and will not present any peak periods. The baseline peak flows occurring on the network through this area align alongside the typical commuting periods in the morning and the evening. During both these periods, the delivery route along the L7049 carries a relatively low level of traffic and so even the small number of vehicles generated presents a sufficiently large impact to warrant further capacity assessment of the site access junction itself. A detailed analysis of both the site access and the nearby Ballykelly Cross confirms that there is **no significant** impact on the operational capacity of either junction meaning that the Proposed Project should be considered acceptable from a traffic perspective.

12.5.2 Road Safety

12.5.2.1 Site Access

Site access is via the L7049, with all generated traffic accessing via its junction with the R414 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 therein.

Table 12-9 below indicates the requirements for each junction under consideration in this assessment – namely the L7049/Site access junction and the L7049/R414/L7012 junction. These visibility splays are indicated in Appendix 12B.

Table 12-9 - Visibility Splays at Junctions

Junction	“x” distance	“y” distance
L7049/Site Access	2.0 m	120 m
L7049/R414/L7012	3.0 m	160 m

12.5.2.3 Public Transport

There are no public transport connections within safe walking distance of the Site with the nearest bus services located 2 km away in Clonbollogue.

The nearest bus and rail connections to the Site are located 2 km away in Monasterevin. Monasterevin train station as part of the rail network offers connections to the urban centres of Cork, Galway, Dublin, Westport, Portlaoise as well as intermediary stations as part of Ireland's rail network. Local bus route 806 operates between Monasterevin and Portarlington and serves westbound bus stop 152361 and eastbound bus stop 136501 every 90 minutes in morning and evening peaks with services every 120 minutes at off peak. Bus route 726, the N7 service operates every hour from Monasterevin to Portlaoise or Dublin airport. Both bus stops provide hardstanding areas with hailing poles, standard pavement kerbs with only stop 136501 providing a sheltered bus stop.

12.5.2.4 Pedestrians and Cyclists

There is no footpath provision on the R414 surrounding the junction with the L7049, neither is there any crossing provisions in the vicinity. There are no current cycle lanes or other facilities on the R414, nor are there any bespoke cycling facilities on site.

12.5.2.5 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 site operations have not highlighted any specific areas of concern.

Effects from traffic on road safety are considered to be **Not Significant**.

12.6 Mitigation Measures

Mitigations on site for the Proposed Project will include the following:

The Applicant shall submit a Construction and Traffic Management Plan/Plans for the overall Proposed Project that is to contain the following:

- The duration of the overall construction phase and the individual construction phases.
- Details of all construction vehicles.
- Access and egress arrangements to and from Site via the public road network.
- A conditional and photographic survey of the public road network providing access the Sites.
- This plan is also to contain mitigation measures to minimise the effects the Proposed Project could have on the immediate public road network and existing traffic movements.
- The manner in which HGV vehicles and their frequency will be managed on the local road network in preventing obstructions such as queuing and reversing in order to leave to site having consideration to the narrowness of the local road network.
- Wheelwash arrangements and locations for the Site.
- The manner in which the existing public road network shall be kept clean.
- Relevant site warning signs shall be in accordance with the Department of Transport, Tourism and Sport (DTTAS) Traffic Signs Manual.

12.7 Residual Effects

With the employment of the mitigation measures outlined above it considered that there will be no significant residual effects as a result of the Proposed Project.

12.8 Cumulative Effects

Cumulative effects have been considered in the assessment as part of background traffic measured and as part of the AADT for the assessment period.

12.9 Difficulties Encountered

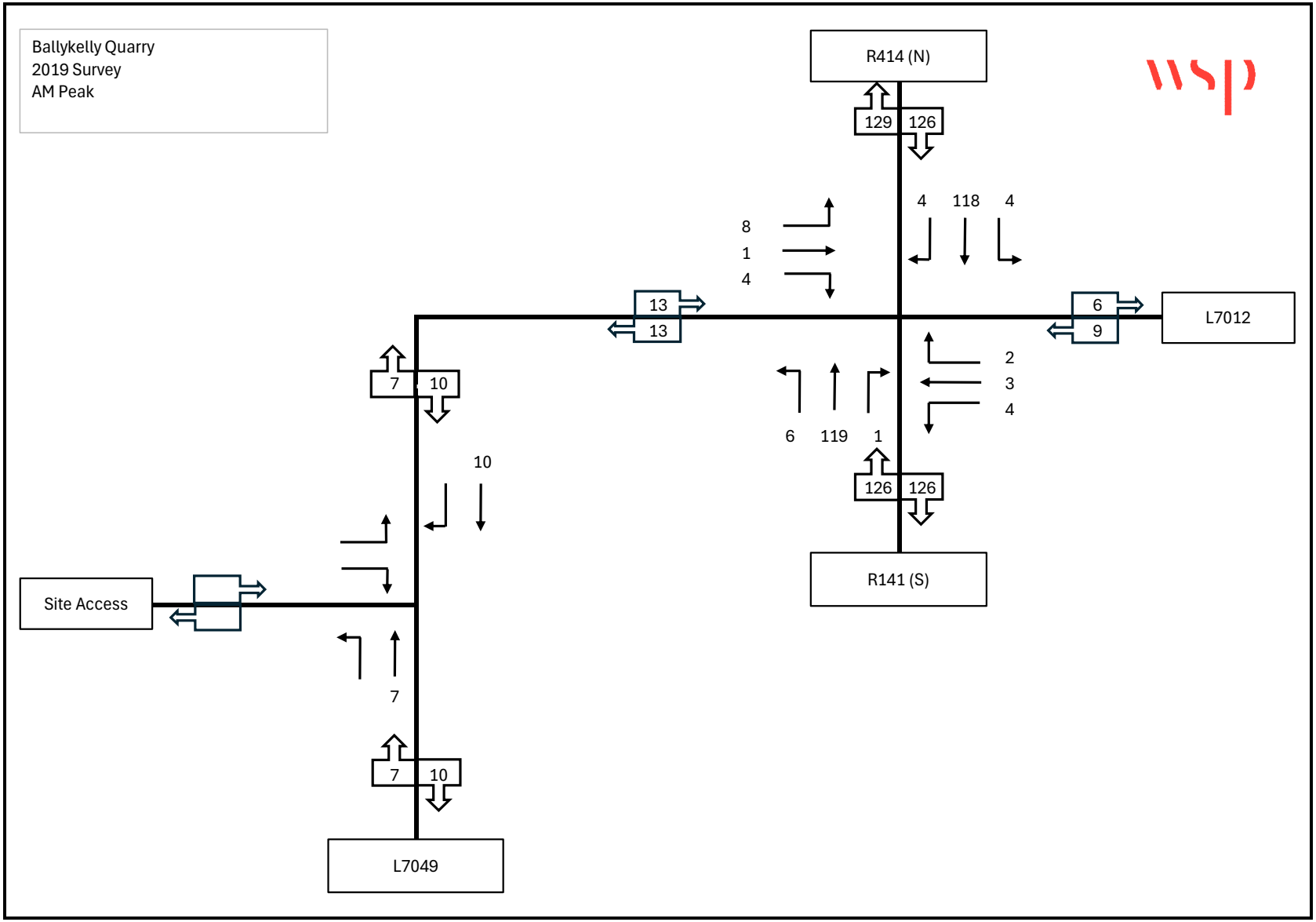
No difficulties were encountered in preparing this EIAR Chapter.

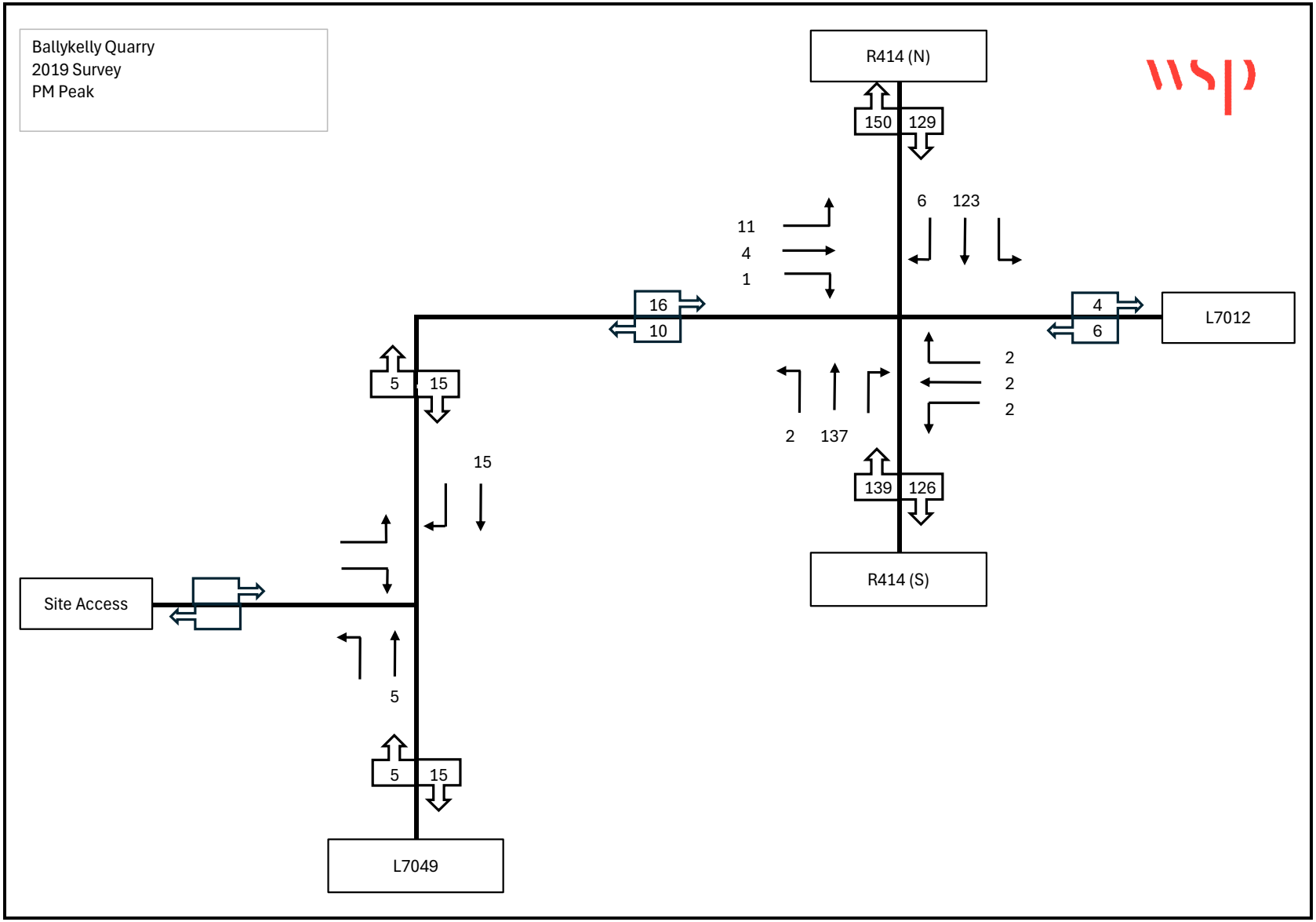
12.10 References

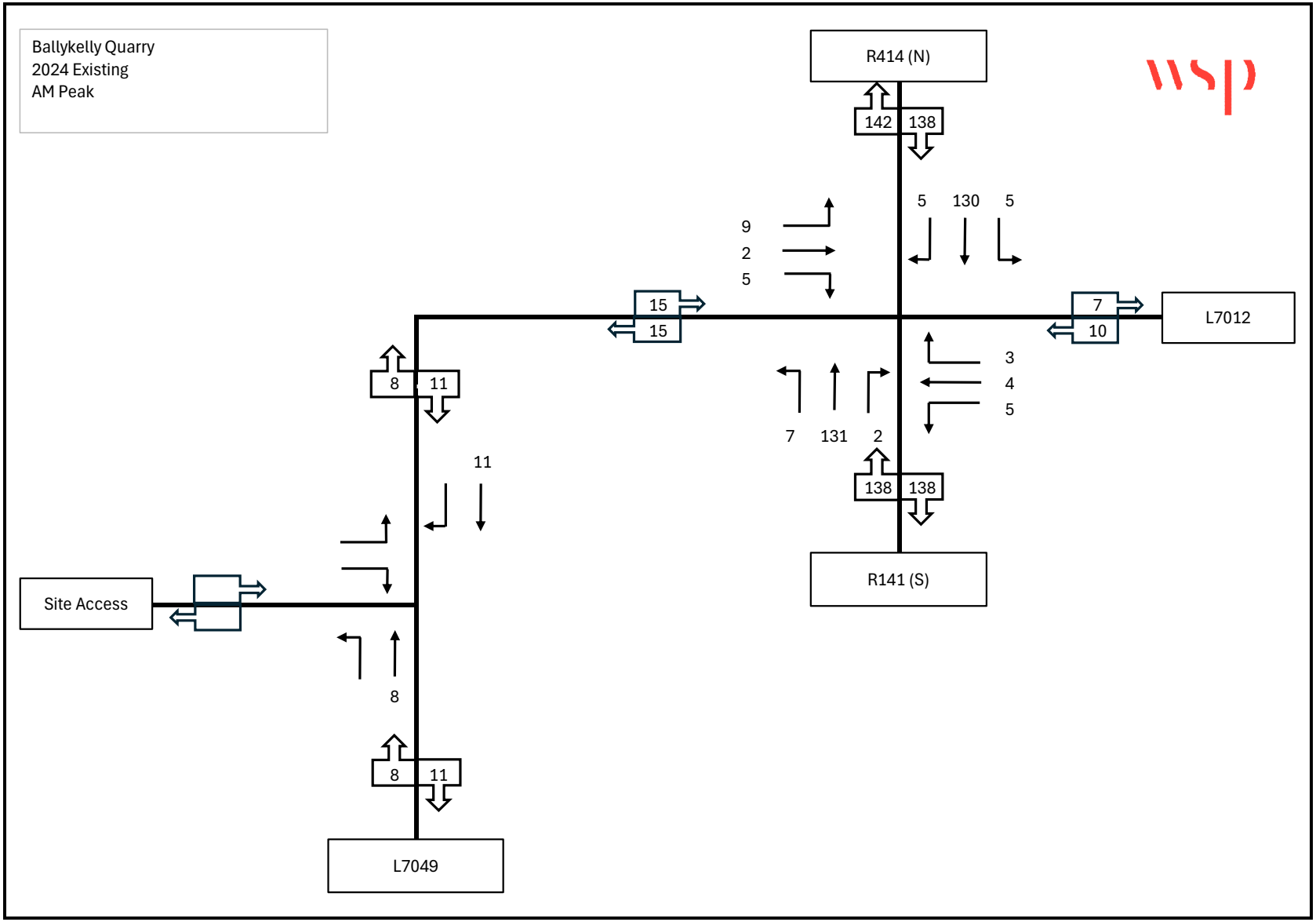
- EPA Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, Environmental Protection Agency (May 2022).
- Traffic and Transport Assessment Guidelines" - (Transport Infrastructure Ireland, May 2014);
- PE-PAG02017 - Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections" - (Transport Infrastructure Ireland, Oct 2021) ;
- Google Satellite imagery, available at: https://earth.google.com/web/ Accessed 01/04/2025
- Geohive, available at: https://www.geohive.ie/ Accessed 01/04/2025

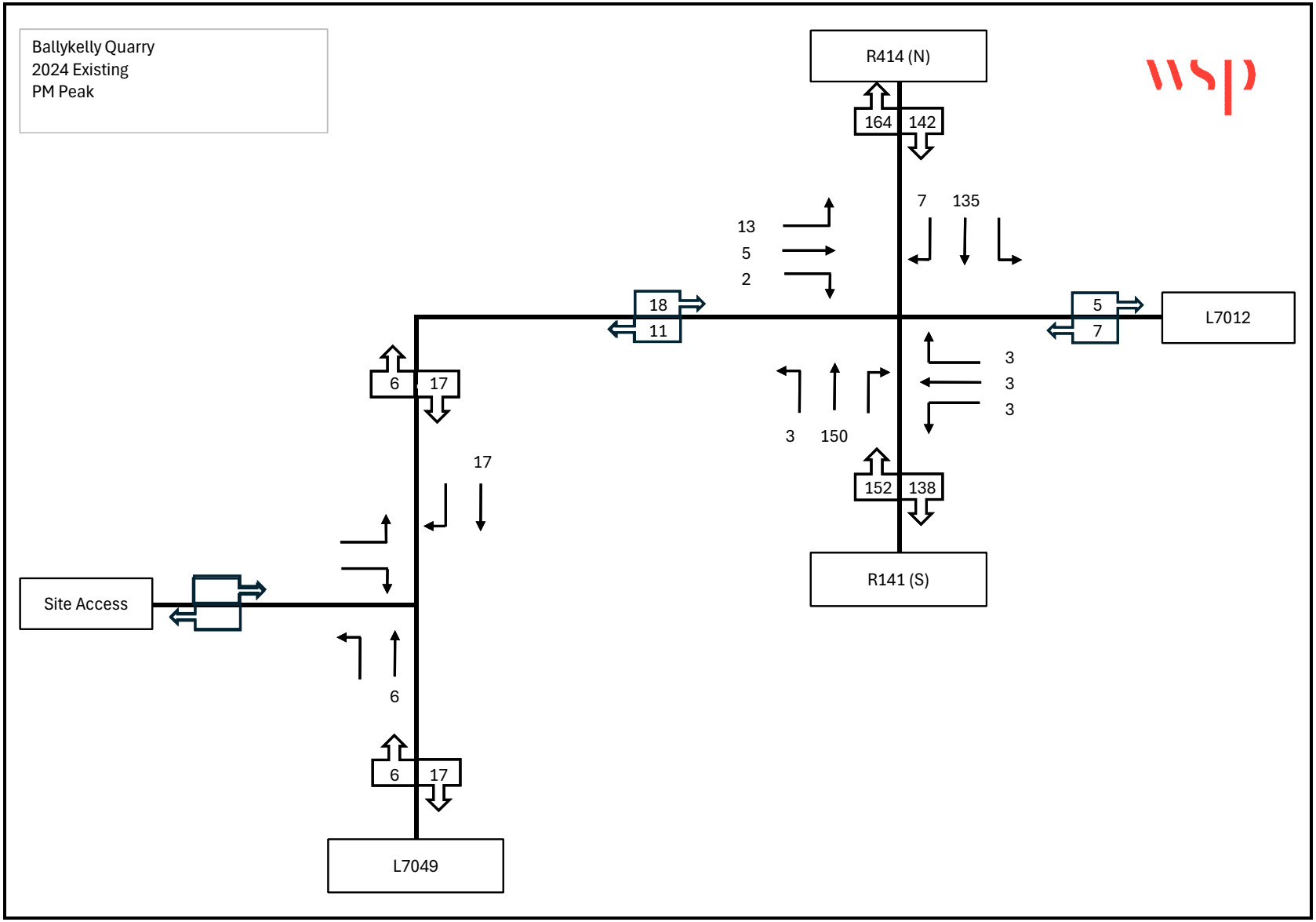
Appendix 12A

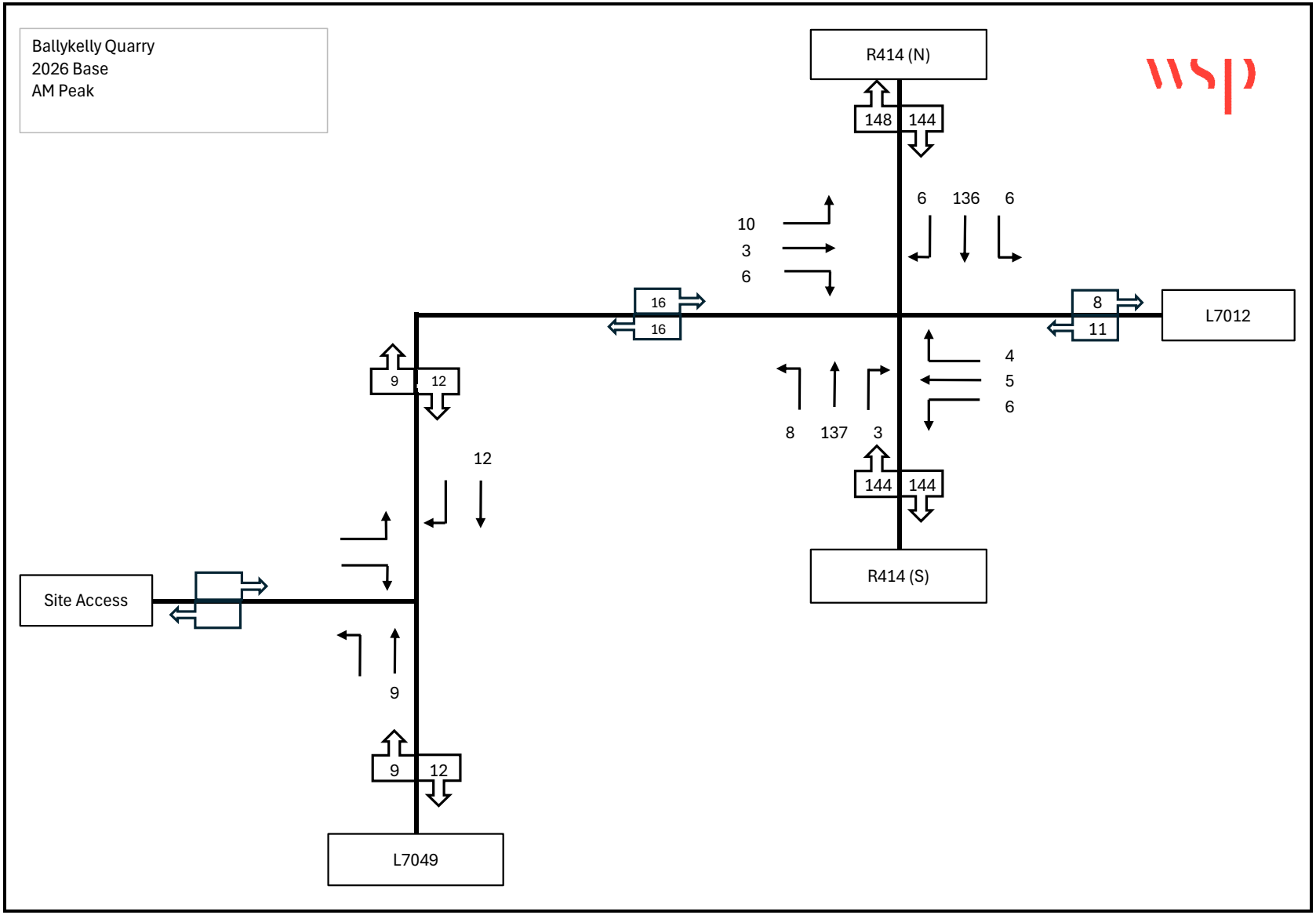
TRAFFIC FLOW DIAGRAMS & PICADY OUTPUTS

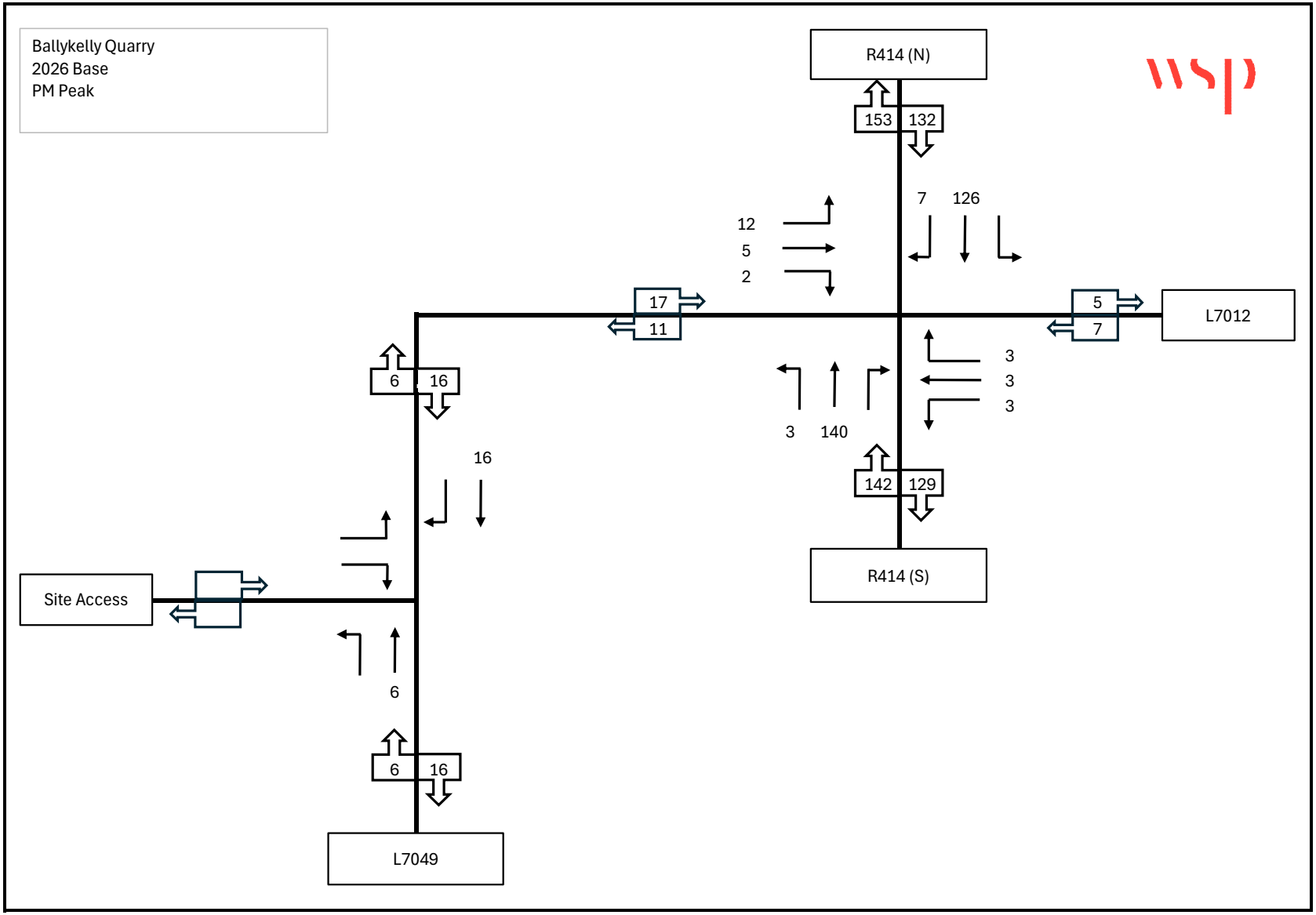

Ballykelly Quarry
2019 Survey
AM Peak
R414 (N)
129
126
4
118
4
8
1
4
13
13
6
9
L7012
7
10
2
3
4
6
119
1
10
126
126
R141 (S)
Site Access
7
7
10
L7049

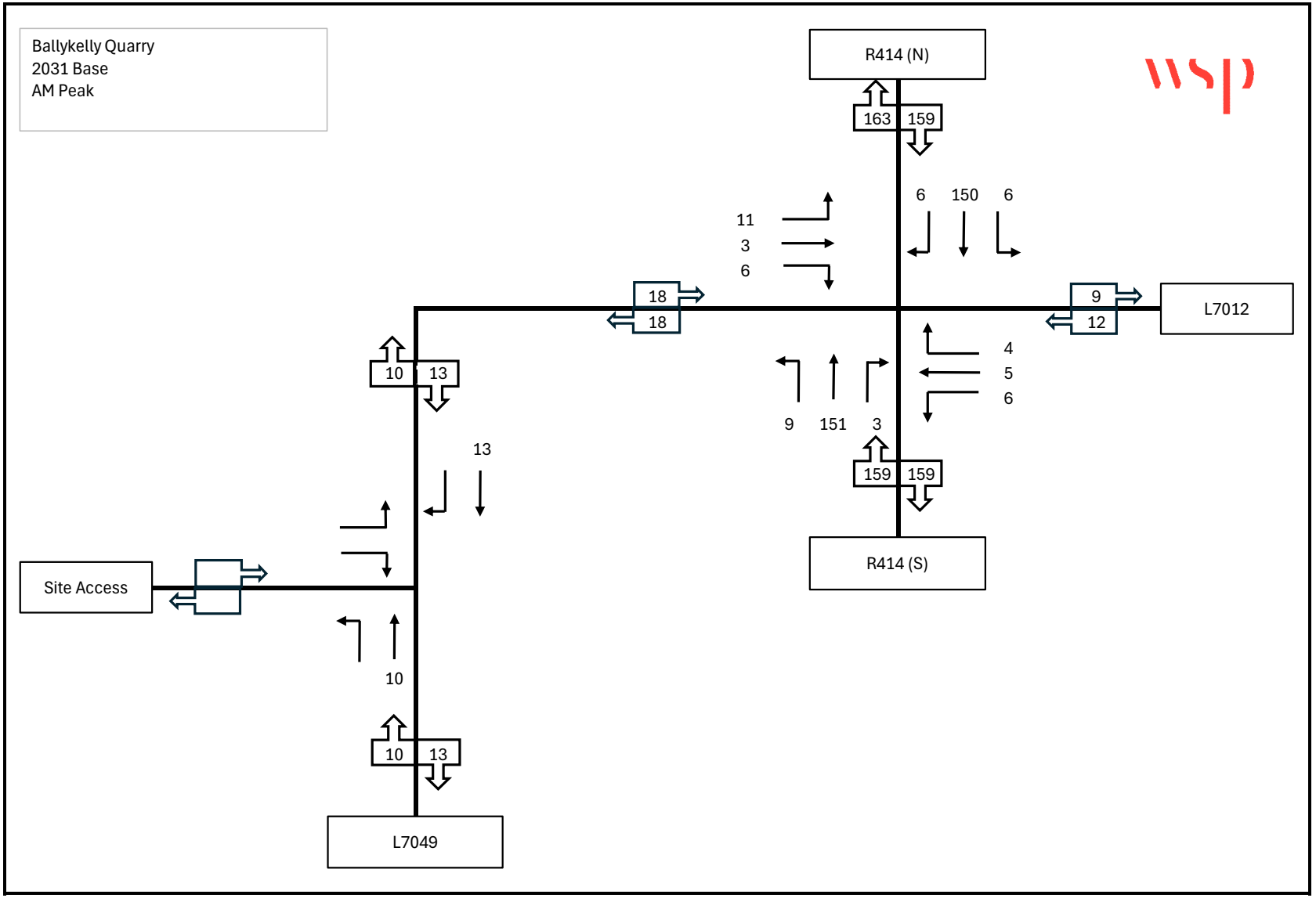

Ballykelly Quarry
2019 Survey
PM Peak
R414 (N)
150
129
6
123
11
4
1
16
10
4
6
L7012
5
15
2
2
2
2
137
15
139
126
R414 (S)
Site Access
5
5
15
L7049

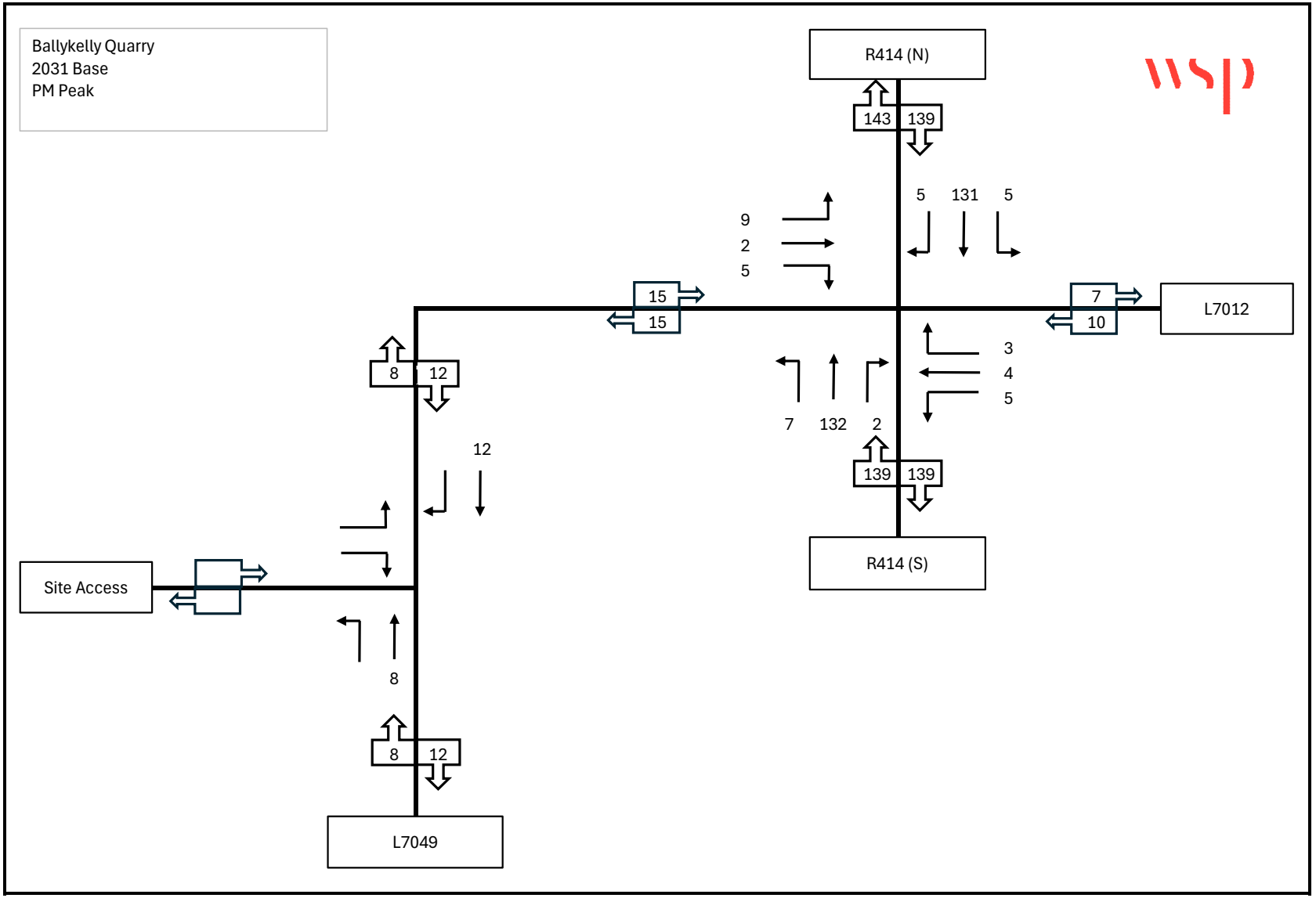

Ballykelly Quarry
2024 Existing
AM Peak
R414 (N)
142
138
5
130
5
9
2
5
15
15
7
10
L7012
8
11
3
4
5
7
131
2
11
138
138
R141 (S)
Site Access
8
8
11
L7049

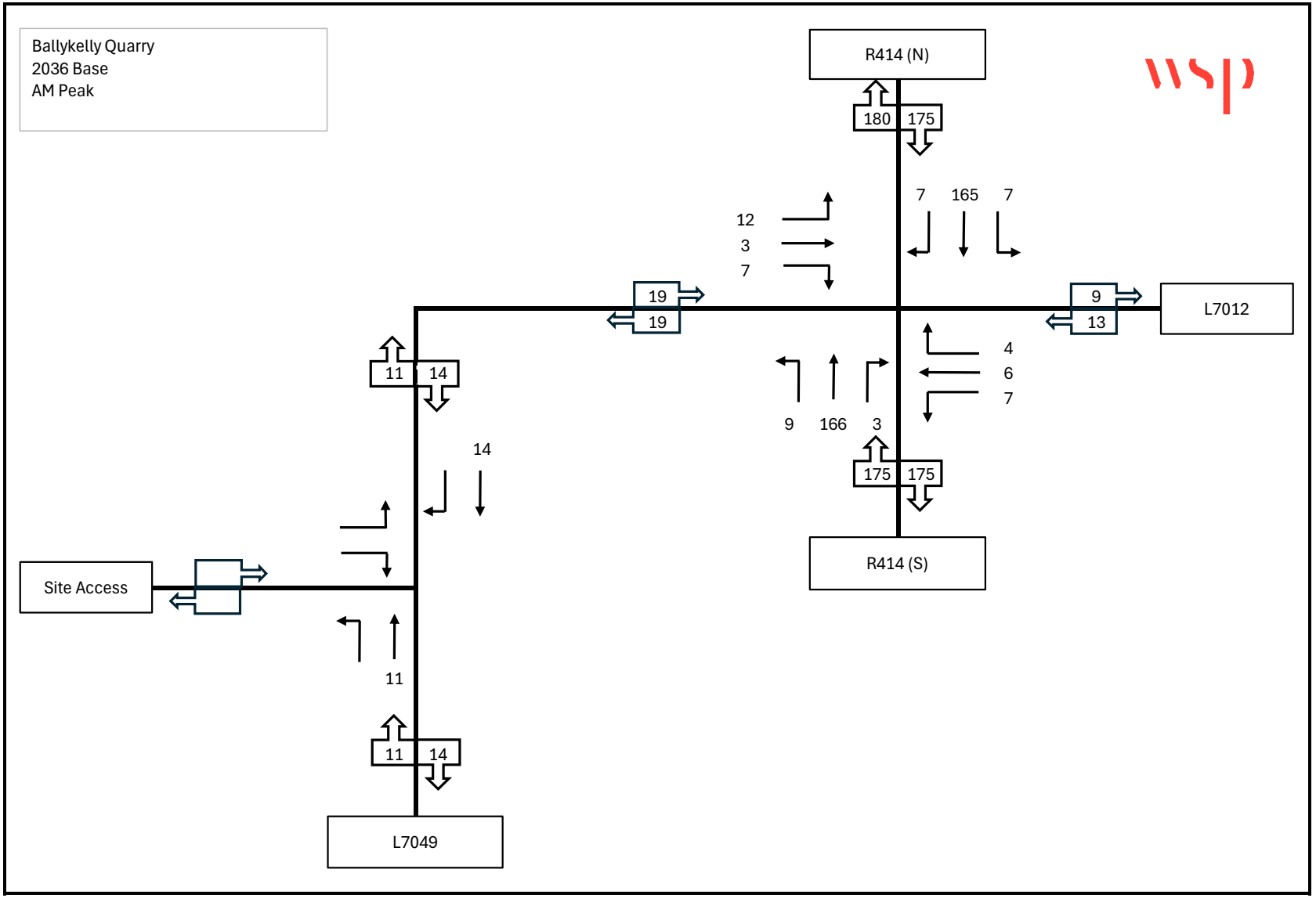

Ballykelly Quarry
2024 Existing
PM Peak
R414 (N)
164
142
7
135
13
5
2
18
11
5
7
L7012
6
17
3
3
3
3
150
17
152
138
R141 (S)
Site Access
6
6
17
L7049

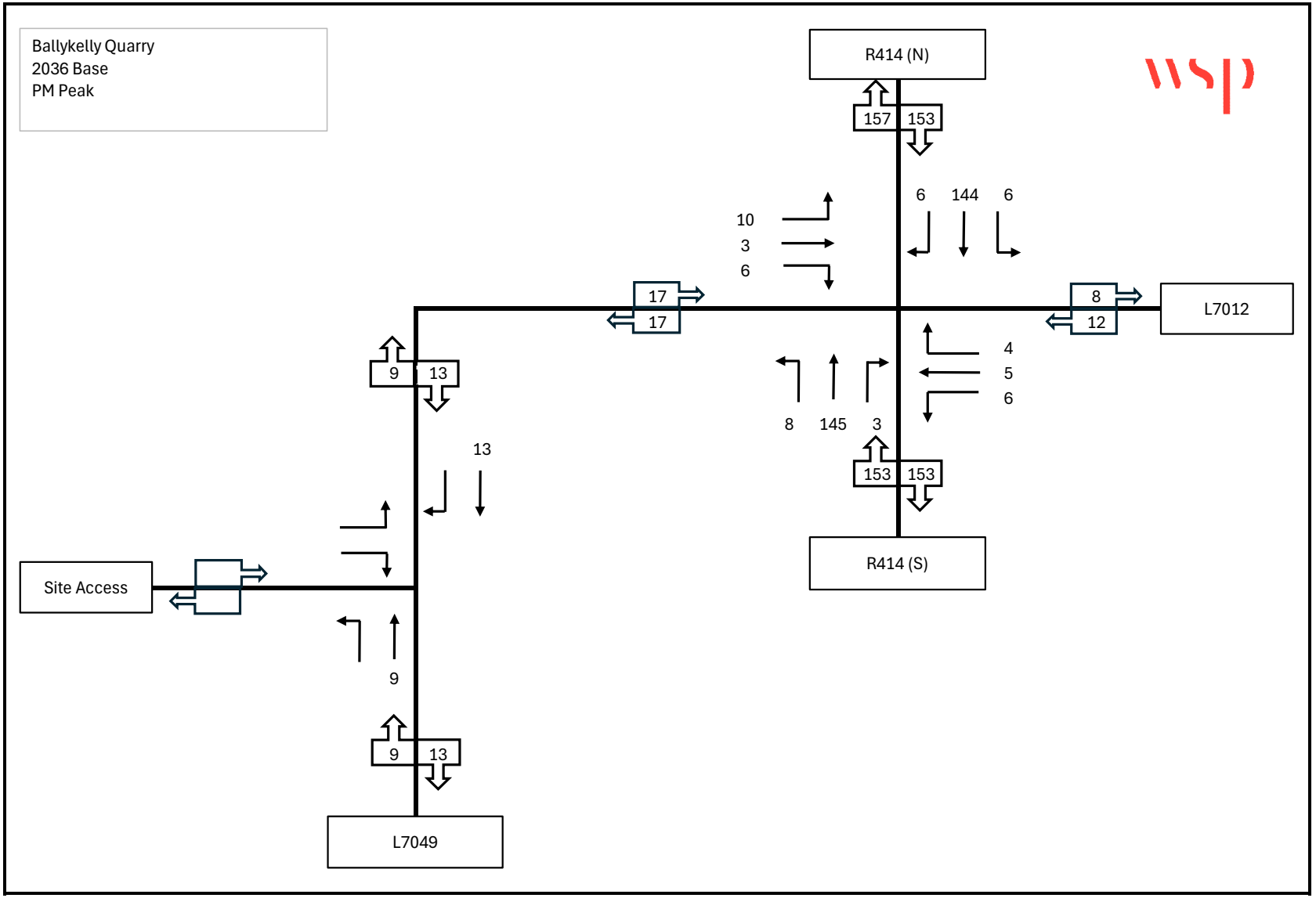

Ballykelly Quarry
2026 Base
AM Peak
R414 (N)
148
144
6
136
6
10
3
6
16
16
8
11
L7012
9
12
4
5
6
8
137
3
144
144
12
R414 (S)
Site Access
9
9
12
L7049

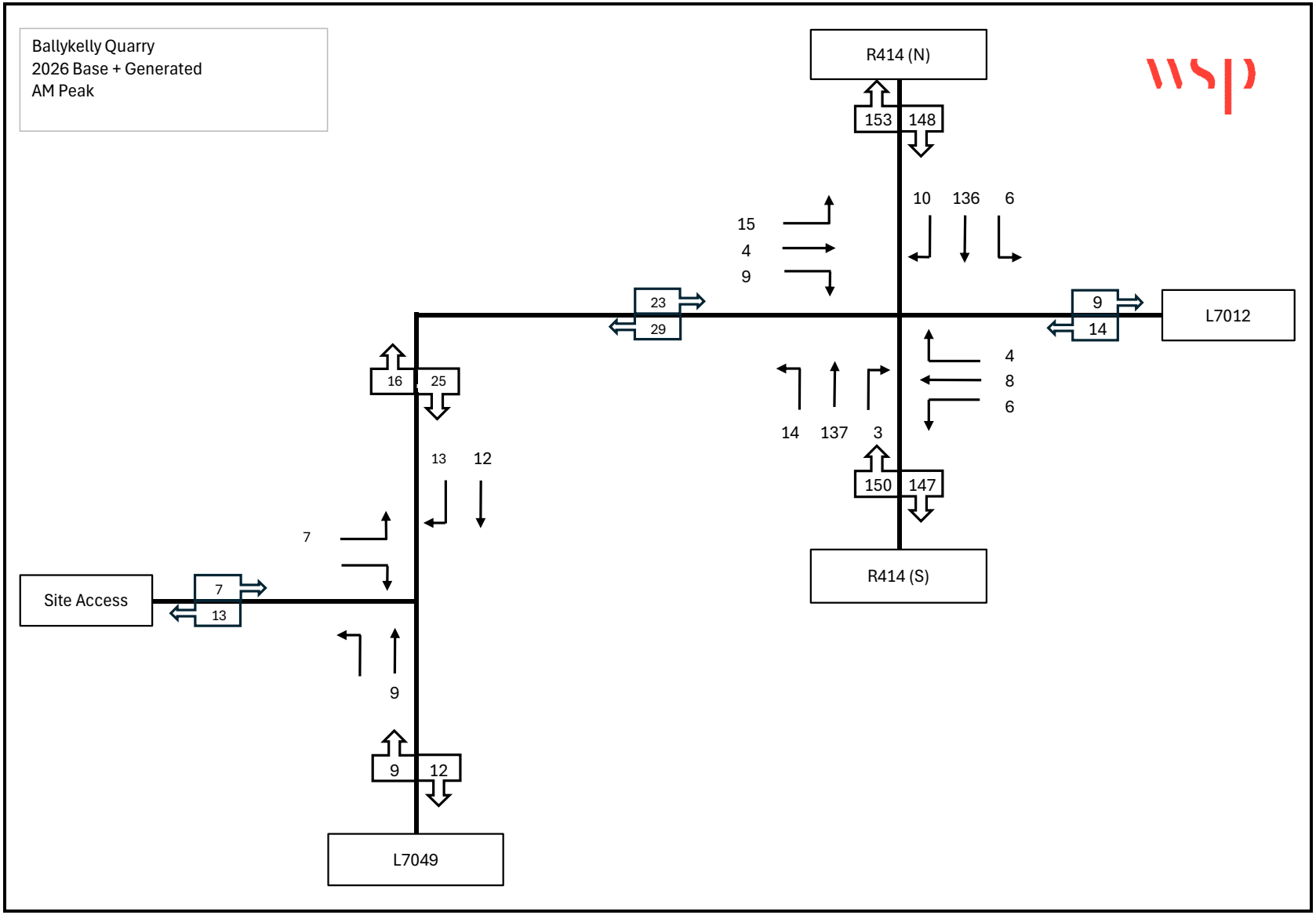

Ballykelly Quarry
2026 Base
PM Peak
R414 (N)
153
132
7
126
12
5
2
17
11
5
7
L7012
6
16
3
3
3
3
140
16
142
129
R414 (S)
Site Access
6
6
16
L7049

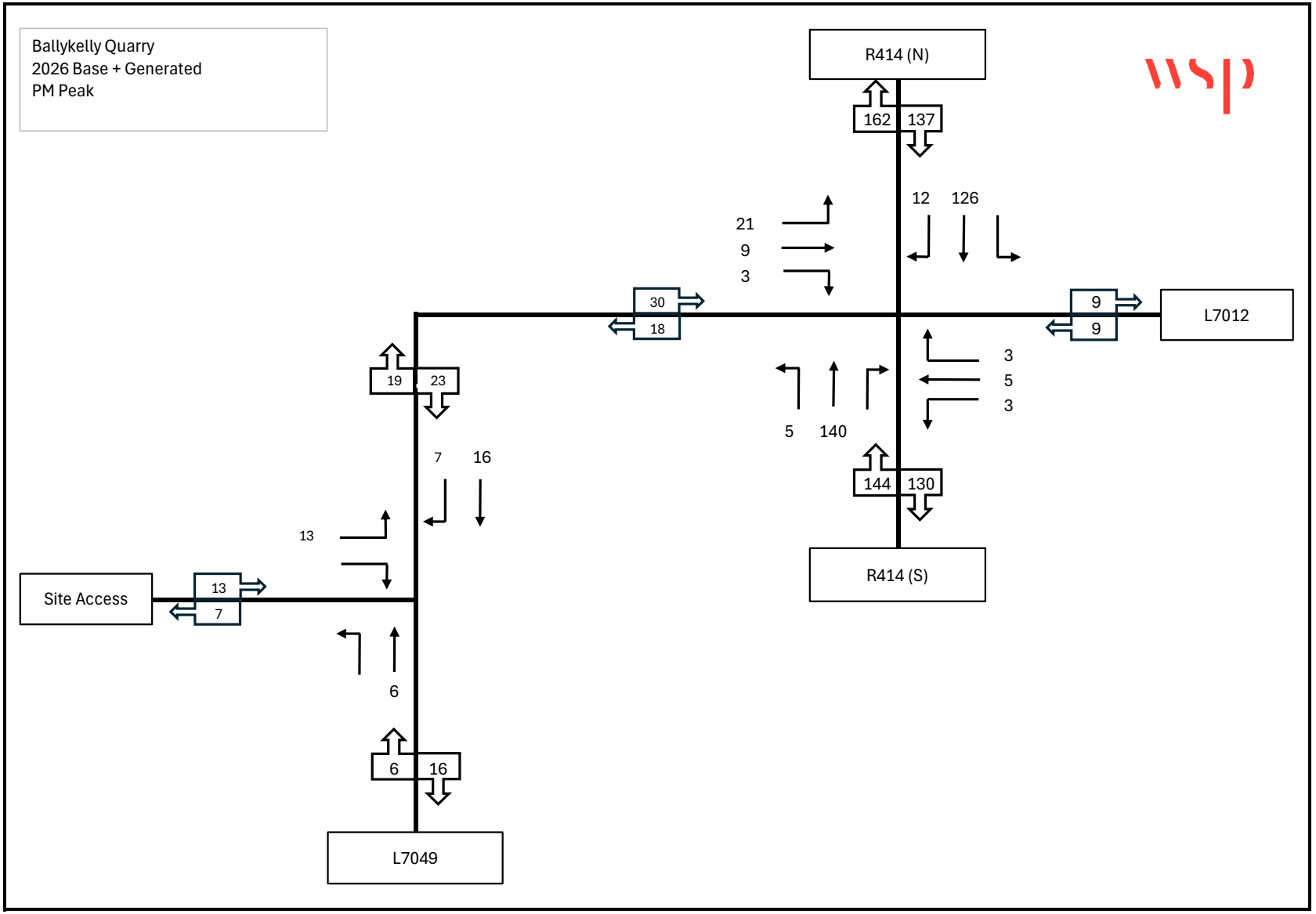

Ballykelly Quarry
2031 Base
AM Peak
R414 (N)
163
159
6
150
6
11
3
6
18
18
9
12
L7012
4
5
6
9
151
3
159
159
R414 (S)
10
13
13
Site Access
10
10
13
L7049

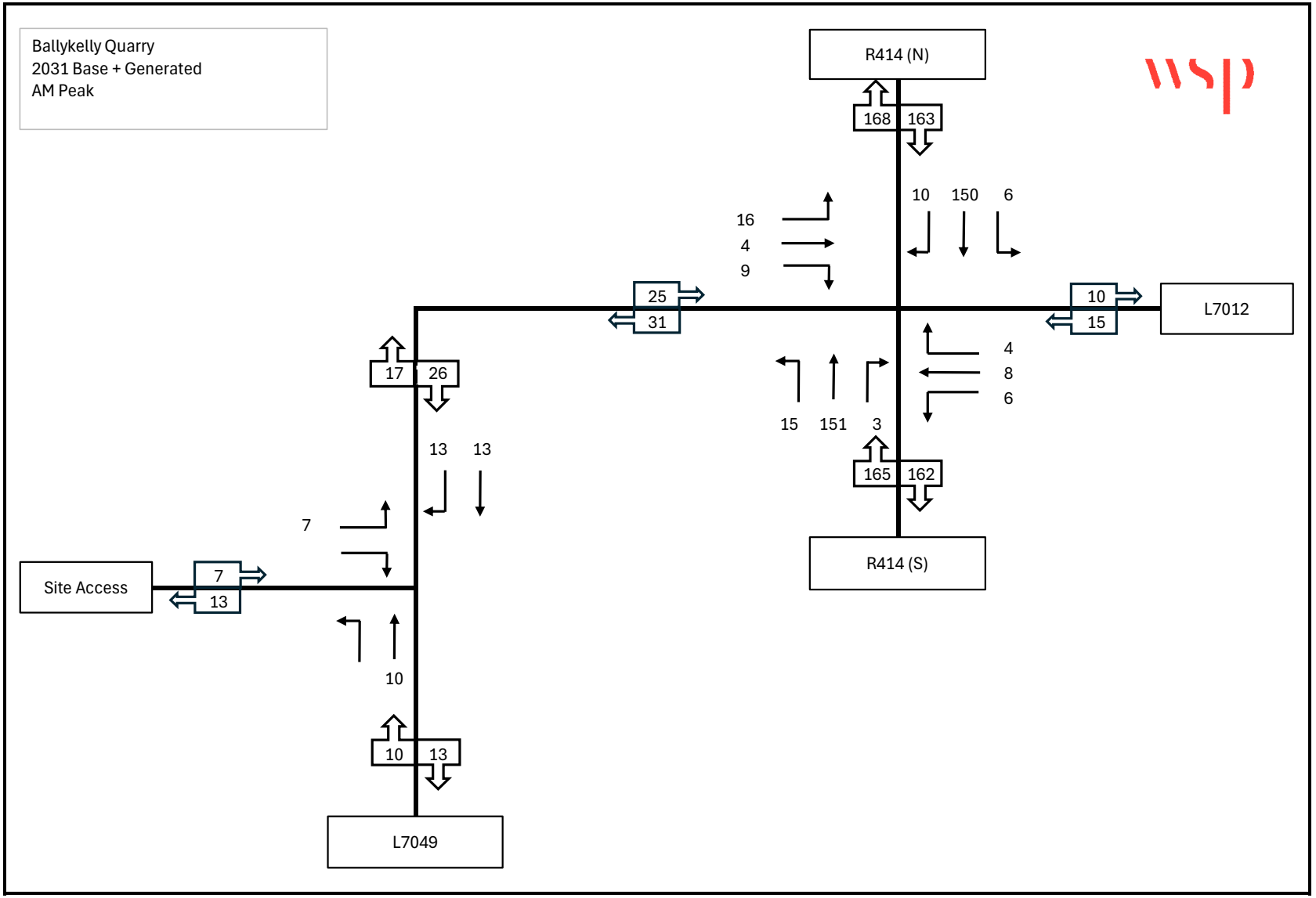

Ballykelly Quarry
2031 Base
PM Peak
R414 (N)
143
139
5
131
5
9
2
5
15
15
7
10
L7012
8
12
3
4
5
7
132
2
12
139
139
R414 (S)
Site Access
8
8
12
L7049

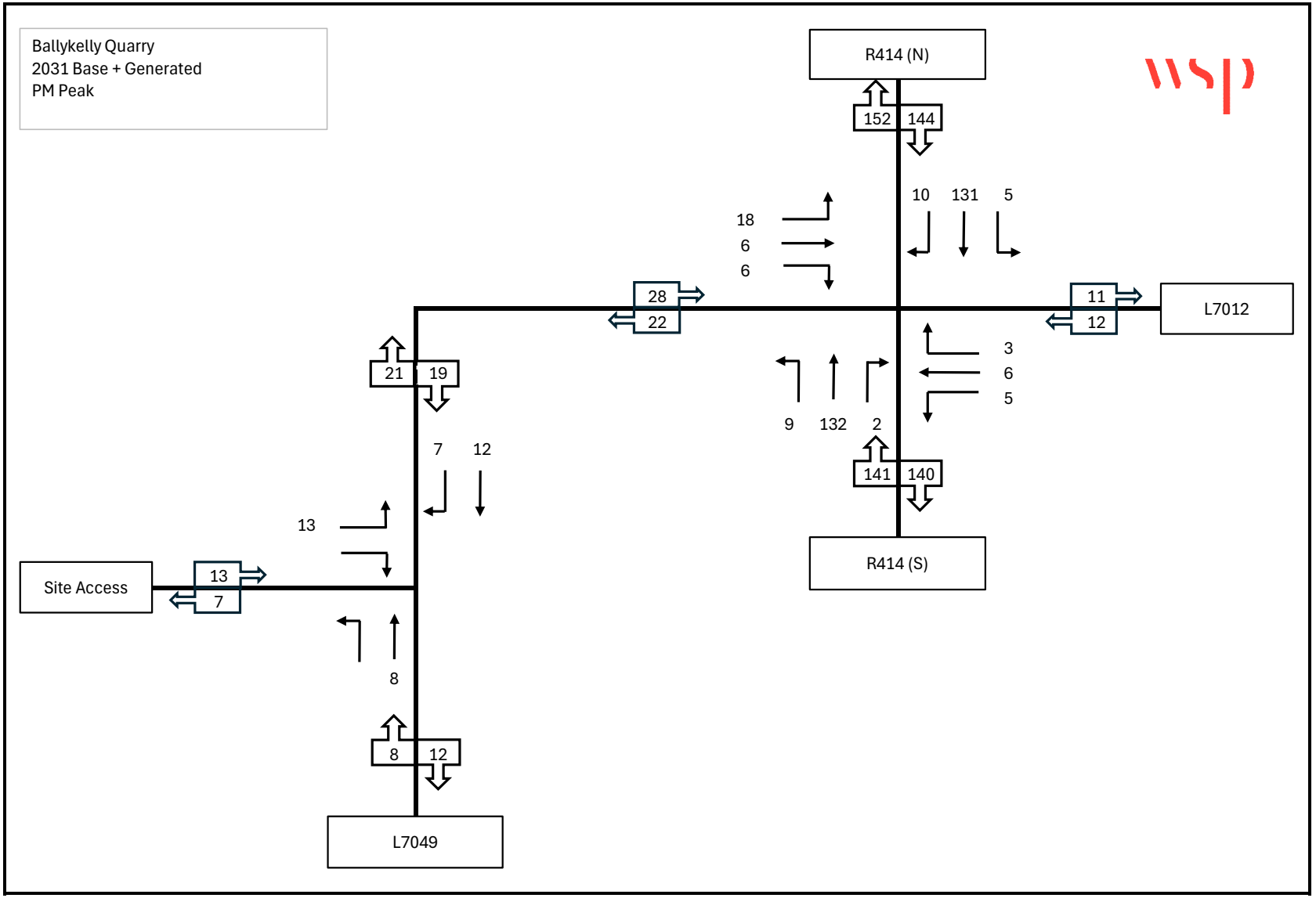

Ballykelly Quarry
2036 Base
AM Peak
R414 (N)
180
175
7
165
7
12
3
7
19
19
9
13
L7012
4
6
7
9
166
3
11
14
14
175
175
R414 (S)
Site Access
11
11
14
L7049

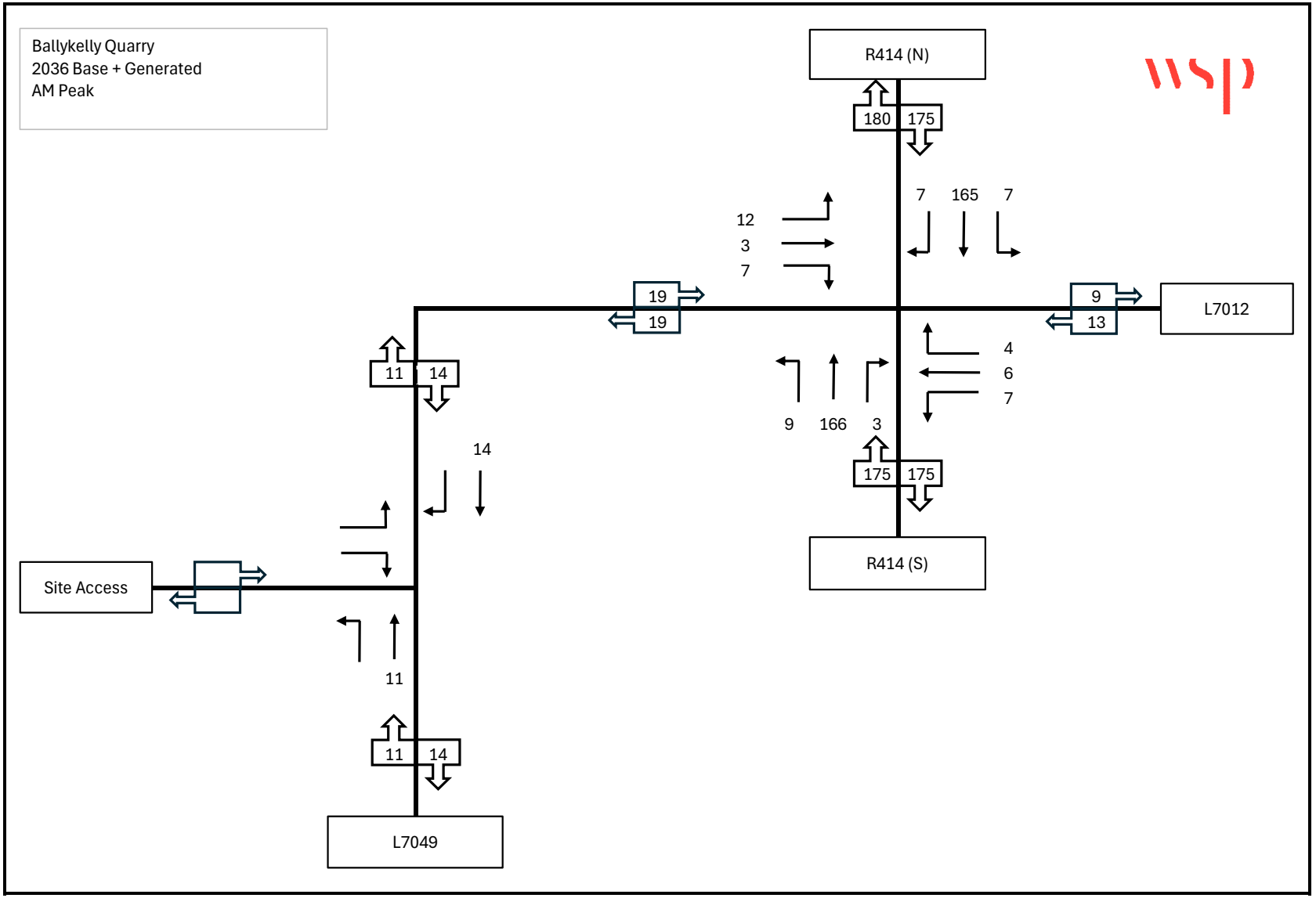

Ballykelly Quarry
2036 Base
PM Peak
R414 (N)
157
153
6
144
6
10
3
6
17
17
8
12
L7012
4
5
6
9
13
8
145
3
13
153
153
R414 (S)
Site Access
9
9
13
L7049

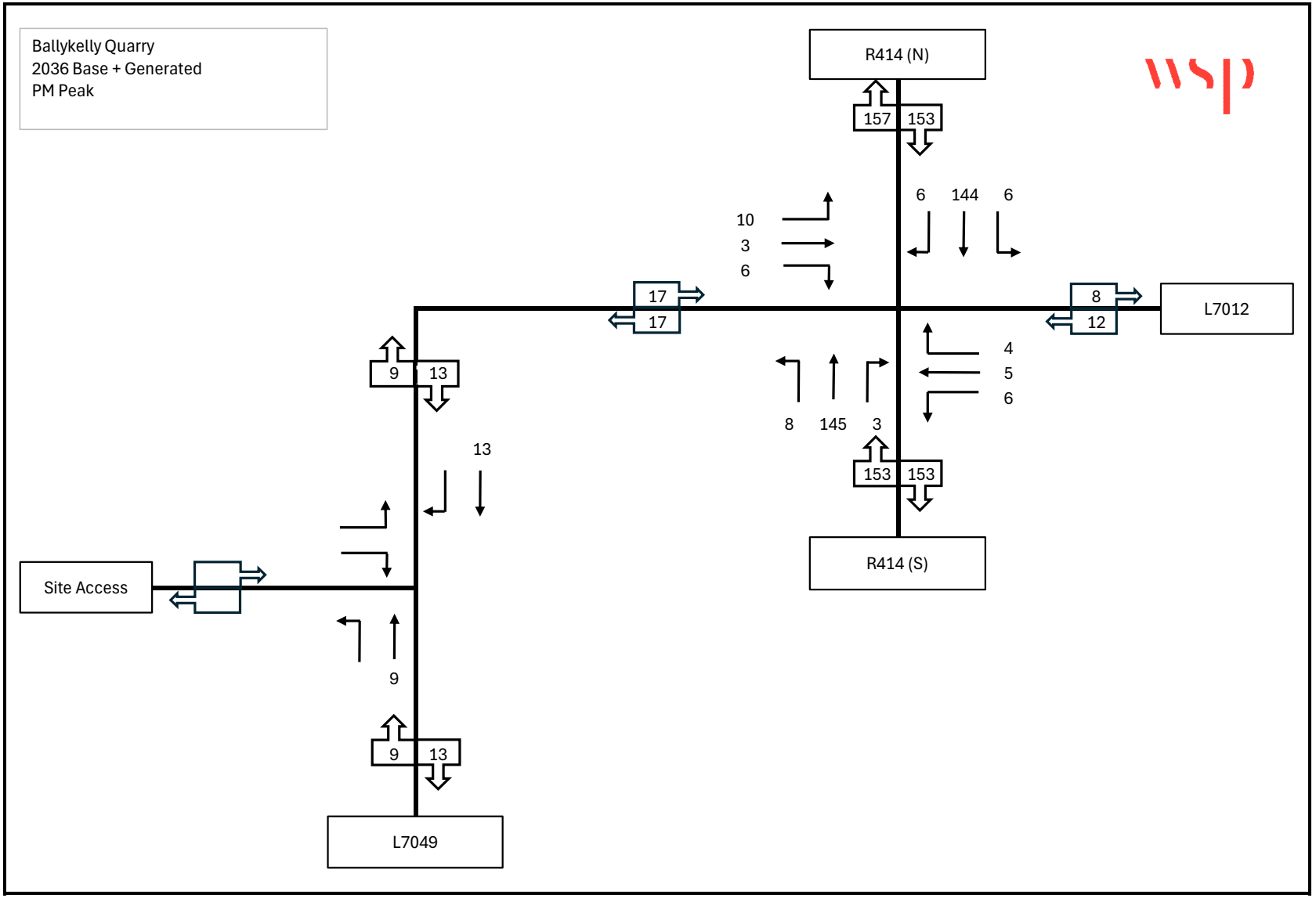

Ballykelly Quarry
2026 Base + Generated
AM Peak
R414 (N)
153
148
10
136
6
15
4
9
23
29
9
14
L7012
16
25
4
8
6
14
137
3
13
12
150
147
R414 (S)
7
Site Access
7
13
9
9
12
L7049

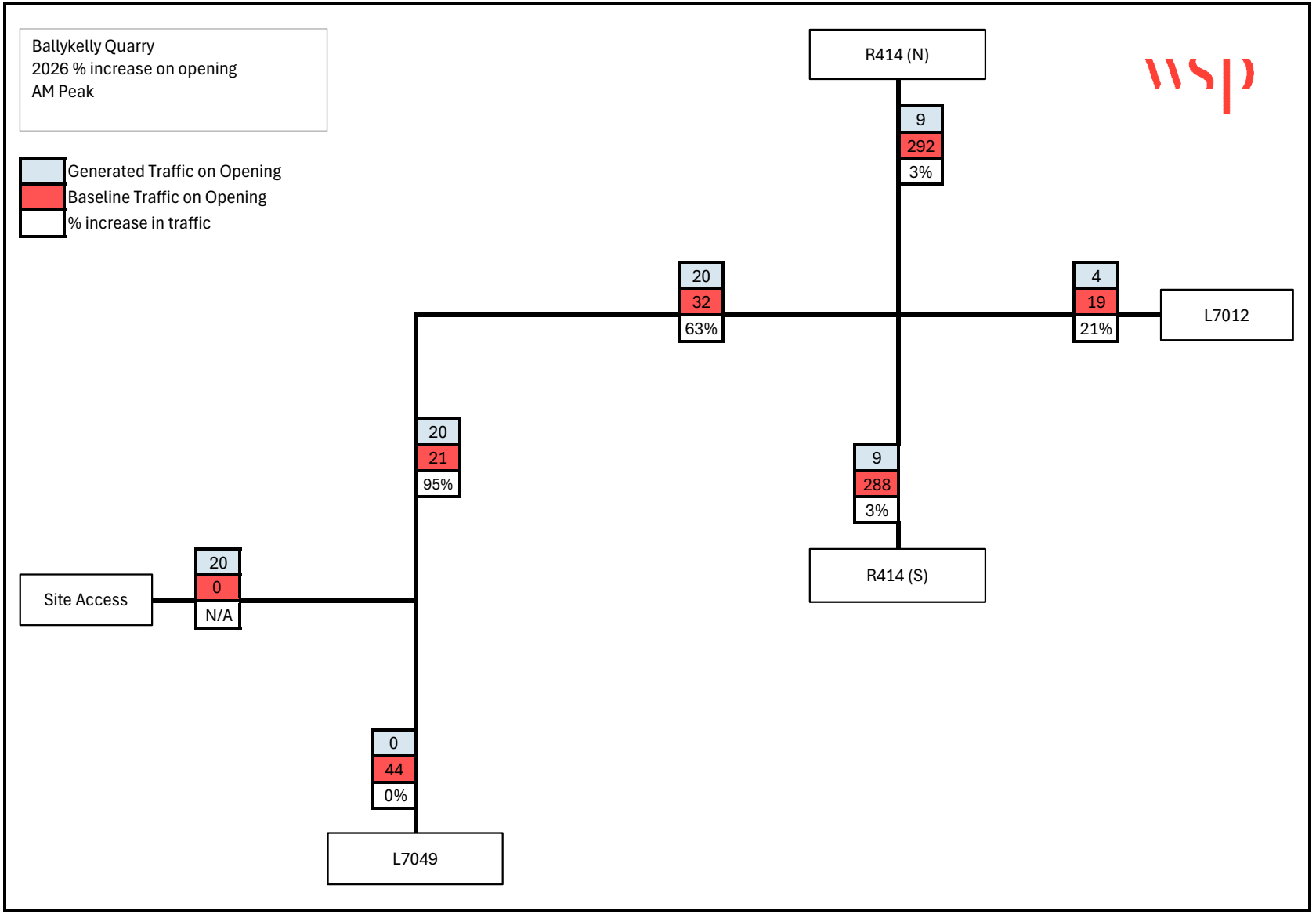

Ballykelly Quarry
2026 Base + Generated
PM Peak
R414 (N)
162
137
12
126
21
9
3
30
18
9
9
L7012
19
23
3
5
3
5
140
7
16
144
130
13
Site Access
13
7
R414 (S)
6
6
16
L7049

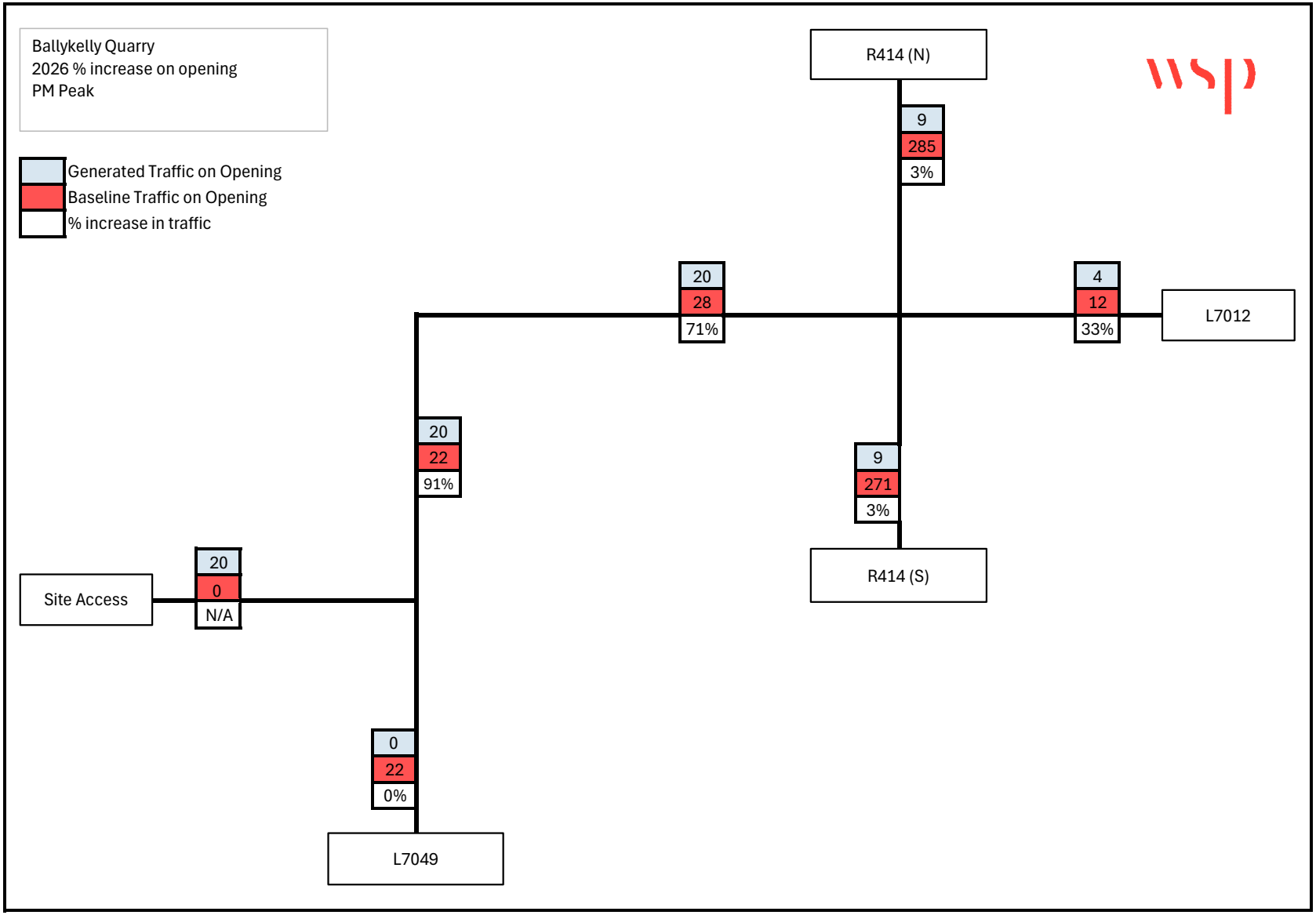

Ballykelly Quarry
2031 Base + Generated
AM Peak
R414 (N)
168
163
10
150
6
16
4
9
25
31
10
15
L7012
17
26
4
8
6
15
151
3
13
13
165
162
R414 (S)
7
Site Access
7
13
10
10
13
L7049


Ballykelly Quarry
2031 Base + Generated
PM Peak
R414 (N)
152
144
10
131
5
18
6
6
28
22
11
12
L7012
3
6
5
9
132
2
21
19
7
12
141
140
13
R414 (S)
Site Access
13
7
8
8
12
L7049


Ballykelly Quarry
2036 Base + Generated
AM Peak
R414 (N)
180
175
7
165
7
12
3
7
19
19
9
13
L7012
4
6
7
9
166
3
11
14
14
175
175
R414 (S)
Site Access
11
11
14
L7049


Ballykelly Quarry
2036 Base + Generated
PM Peak
R414 (N)
157
153
6
144
6
10
3
6
17
17
8
12
L7012
9
13
4
5
6
8
145
3
13
153
153
R414 (S)
Site Access
9
9
13
L7049


Ballykelly Quarry
2026 % increase on opening
AM Peak
Generated Traffic on Opening
Baseline Traffic on Opening
% increase in traffic
R414 (N)
9
292
3%
20
32
63%
4
19
21%
L7012
20
21
95%
9
288
3%
R414 (S)
20
0
N/A
Site Access
0
44
0%
L7049


Ballykelly Quarry
2026 % increase on opening
PM Peak
Generated Traffic on Opening
Baseline Traffic on Opening
% increase in traffic
R414 (N)
9
285
3%
20
28
71%
4
12
33%
L7012
20
22
91%
9
271
3%
R414 (S)
Site Access
20
0
N/A
0
22
0%
L7049

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896

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

Filename: L7049-Site Access Junction ver1.j9
Path: C:\Users\kevin\Desktop\WSP\Ballykelly Quarry\S37L
Report generation date: 12/05/2025 11:10:34

Summary of junction performance

	AM					PM				
	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
	2026 Baseline									
Stream B-AC	~1	0.00	0.00	A	0.00	~1	0.00	0.00	A	0.00
Stream C-AB	~1	0.00	0.00	A		~1	0.00	0.00	A	
	2031 Baseline									
Stream B-AC	~1	0.00	0.00	A	0.00	~1	0.00	0.00	A	0.00
Stream C-AB	~1	0.00	0.00	A		~1	0.00	0.00	A	
	2033 Baseline									
Stream B-AC	~1	0.00	0.00	A	0.00	~1	0.00	0.00	A	0.00
Stream C-AB	~1	0.00	0.00	A		~1	0.00	0.00	A	
	2036 Baseline									
Stream B-AC	~1	0.00	0.00	A	0.00	~1	0.00	0.00	A	0.00
Stream C-AB	~1	0.00	0.00	A		~1	0.00	0.00	A	
	2026 Baseline + Generated									
Stream B-AC	~1	0.00	0.00	A	1.45	0.5	4.80	0.01	A	1.38
Stream C-AB	0.5	5.98	0.01	A		0.5	5.91	0.01	A	
	2031 Baseline + Generated									
Stream B-AC	~1	0.00	0.00	A	1.38	0.5	4.80	0.01	A	1.31
Stream C-AB	0.5	5.97	0.01	A		0.5	5.90	0.01	A	
	2033 Baseline + Generated									
Stream B-AC	~1	0.00	0.00	A	1.36	0.5	4.80	0.01	A	1.30
Stream C-AB	0.5	5.97	0.01	A		0.5	5.90	0.01	A	
	2036 Baseline + Generated									
Stream B-AC	~1	0.00	0.00	A	1.34	0.5	4.80	0.01	A	1.28
Stream C-AB	0.5	5.97	0.01	A		0.5	5.90	0.01	A	

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

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	2019 Surveyed	AM	ONE HOUR	07:45	09:15	15	✓			
D2	2024 Existing	AM	ONE HOUR	07:45	09:15	15	✓		Simple	D1*1.0933
			ONE							

D3	2026 Baseline	AM	HOUR	07:45	09:15	15	✓	✓	Simple	D2*1.0363
D4	2031 Baseline	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D2*1.1069
D5	2033 Baseline	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D2*1.1207
D6	2036 Baseline	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D2*1.1417
D7	2026 Generated	AM	ONE HOUR	07:45	09:15	15	✓			
D8	2026 Baseline + Generated	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D3+D7
D9	2031 Baseline + Generated	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D4+D7
D10	2033 Baseline + Generated	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D5+D7
D11	2036 Baseline + Generated	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D6+D7
D12	2019 Surveyed	PM	ONE HOUR	16:45	18:15	15	✓			
D13	2024 Existing	PM	ONE HOUR	16:45	18:15	15	✓		Simple	D12*1.0933
D14	2026 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D13*1.0363
D15	2031 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D13*1.1069
D16	2033 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D13*1.1207
D17	2036 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D13*1.1417
D18	2026 Generated	PM	ONE HOUR	16:45	18:15	15	✓			
D19	2026 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D14+D18
D20	2031 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D15+D18
D21	2033 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D16+D18
D22	2036 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D17+D18

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	Demand Sets	D3 - 2026 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	L7049 (South)		Major
B	Site Access		Minor
C	L7049 (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 - L7049 (North)	6.30			50.0	✓	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	37	11

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 - L7049 (South)	60.00	60.00	7.72			252.87	252.87
B - Site Access	50.00	50.00	18.85	20.00		252.87	252.87
C - L7049 (North)	60.00	60.00				252.87	252.87

WARNING: for one or more junctions, visibilities do not conform to standards laid down in UK TD42/95.

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	594	0.107	0.270	0.170	0.386
1	B-C	757	0.115	0.290	-	-
1	C-B	603	0.231	0.231	-	-

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
D3	2026 Baseline	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D2*1.0363

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 - L7049 (South)		ONE HOUR	✓	8	100.000
B - Site Access		ONE HOUR	✓	0	100.000
C - L7049 (North)		ONE HOUR	✓	11	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	8
	B - Site Access	0	0	0
	C - L7049 (North)	11	0	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.33	0.33	0.33
	C - L7049 (North)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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)
07:45-08:00	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	9	9
08:00-08:15	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	10	10
08:15-08:30	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	12	12
08:30-08:45	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	12	12
08:45-09:00	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	10	10
09:00-09:15	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	9	9

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00

C-AB	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-A						11	11					
A-B						0	0					
A-C						8	8					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Main Results for each time segment

08:00 - 08:15

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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	10	3			10				
A-B	0	0			0				
A-C	7	2			7				

08:15 - 08:30

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	12	3			12				
A-B	0	0			0				
A-C	9	2			9				

08:30 - 08:45

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	12	3			12				
A-B	0	0			0				
A-C	9	2			9				

08:45 - 09:00

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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	10	3			10				
A-B	0	0			0				
A-C	7	2			7				

Queueing Delay Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:15 - 08:30

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:30 - 08:45

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:45 - 09:00

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

Queue Variation Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 08:00-08:15

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

Geometric Delay results: 08:15-08:30

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

Geometric Delay results: 08:30-08:45

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

A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:45-09:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.00	0.00
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 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	**B - Site Access**	**C - L7049 (North)**
From	**A - L7049 (South)**	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	**B - Site Access**	**C - L7049 (North)**
From	**A - L7049 (South)**	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	**B - Site Access**	**C - L7049 (North)**
From	**A - L7049 (South)**	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	**B - Site Access**	**C - L7049 (North)**
From	**A - L7049 (South)**	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	**B - Site Access**	**C - L7049 (North)**
From	**A - L7049 (South)**	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	**B - Site Access**	**C - L7049 (North)**
From	**A - L7049 (South)**	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	**B - Site Access**	**C - L7049 (North)**
From	**A - L7049 (South)**	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	**B - Site Access**	**C - L7049 (North)**
From	**A - L7049 (South)**	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

2031 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D4 - 2031 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D4	2031 Baseline	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D2*1.1069

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 - L7049 (South)		ONE HOUR	✓	8	100.000
B - Site Access		ONE HOUR	✓	0	100.000
C - L7049 (North)		ONE HOUR	✓	12	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	8
	B - Site Access	0	0	0
	C - L7049 (North)	12	0	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.33	0.33	0.33
	C - L7049 (North)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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)
07:45-08:00	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	9	9
08:00-08:15	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	11	11
08:15-08:30	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	13	13
08:30-08:45	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	13	13
08:45-09:00	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	11	11
09:00-09:15	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	9	9

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-AB	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-A						12	12					
A-B						0	0					
A-C						8	8					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Main Results for each time segment

08:00 - 08:15

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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

08:15 - 08:30

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	13	3			13				
A-B	0	0			0				
A-C	9	2			9				

08:30 - 08:45

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	13	3			13				
A-B	0	0			0				
A-C	9	2			9				

08:45 - 09:00

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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

Queueing Delay Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:15 - 08:30

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:30 - 08:45

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:45 - 09:00

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

Queue Variation Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 08:00-08:15

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

Geometric Delay results: 08:15-08:30

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

Geometric Delay results: 08:30-08:45

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

Geometric Delay results: 08:45-09:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.00	0.00
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 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

2033 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2033 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D5	2033 Baseline	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D2*1.1207

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 - L7049 (South)		ONE HOUR	✓	9	100.000
B - Site Access		ONE HOUR	✓	0	100.000
C - L7049 (North)		ONE HOUR	✓	12	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	9
	B - Site Access	0	0	0
	C - L7049 (North)	12	0	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.33	0.33	0.33
	C - L7049 (North)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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)
07:45-08:00	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	9	9
08:00-08:15	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	11	11
08:15-08:30	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	13	13
08:30-08:45	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	13	13
08:45-09:00	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	11	11
09:00-09:15	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	9	9

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-AB	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-A						12	12					
A-B						0	0					
A-C						9	9					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Main Results for each time segment

08:00 - 08:15

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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

08:15 - 08:30

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	13	3			13				
A-B	0	0			0				
A-C	9	2			9				

08:30 - 08:45

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	13	3			13				
A-B	0	0			0				
A-C	9	2			9				

08:45 - 09:00

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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

Queueing Delay Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:15 - 08:30

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:30 - 08:45

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:45 - 09:00

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

Queue Variation Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 08:00-08:15

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

Geometric Delay results: 08:15-08:30

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

Geometric Delay results: 08:30-08:45

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

Geometric Delay results: 08:45-09:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.00	0.00
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 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

2036 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2036 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D6	2036 Baseline	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D2*1.1417

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 - L7049 (South)		ONE HOUR	✓	9	100.000
B - Site Access		ONE HOUR	✓	0	100.000
C - L7049 (North)		ONE HOUR	✓	12	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	9
	B - Site Access	0	0	0
	C - L7049 (North)	12	0	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.33	0.33	0.33
	C - L7049 (North)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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)
07:45-08:00	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	9	9
08:00-08:15	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	11	11
08:15-08:30	A - L7049 (South)	10	10
	B - Site Access	0	0
	C - L7049 (North)	14	14
08:30-08:45	A - L7049 (South)	10	10
	B - Site Access	0	0
	C - L7049 (North)	14	14
08:45-09:00	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	11	11
09:00-09:15	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	9	9

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-AB	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-A						12	12					
A-B						0	0					
A-C						9	9					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Main Results for each time segment

08:00 - 08:15

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

08:15 - 08:30

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	14	3			14				
A-B	0	0			0				
A-C	10	2			10				

08:30 - 08:45

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	14	3			14				
A-B	0	0			0				
A-C	10	2			10				

08:45 - 09:00

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

Queueing Delay Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:15 - 08:30

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:30 - 08:45

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

08:45 - 09:00

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	A

Queue Variation Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Geometric Delay Results for each time segment

Geometric Delay results: 08:00-08:15

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

Geometric Delay results: 08:15-08:30

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

Geometric Delay results: 08:30-08:45

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

Geometric Delay results: 08:45-09:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.00	0.00
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 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

2026 Baseline + Generated, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D8 - 2026 Baseline + Generated, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			1.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D8	2026 Baseline + Generated	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D3+D7

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 - L7049 (South)		ONE HOUR	✓	8	100.000
B - Site Access		ONE HOUR	✓	4	100.000
C - L7049 (North)		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	8
	B - Site Access	0	0	4
	C - L7049 (North)	11	6	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L7049 (North)	0.65	0.35	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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)
07:45-08:00	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	13	13
08:00-08:15	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	16	16
08:15-08:30	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	19	19
08:30-08:45	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	19	19
08:45-09:00	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	16	16
09:00-09:15	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	13	13

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-AB	0.01	5.98	0.0	0.5	A	6	6	0.64	6.28	0.01	0.88	6.26
C-A						11	11					
A-B						0	0					
A-C						8	8					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	1.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.60	46.93	0.00

Main Results for each time segment

08:00 - 08:15

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	0	0	661	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	608	0.009	5	0.0	0.0	5.973	A
C-A	10	3			10				
A-B	0	0			0				
A-C	7	2			7				

08:15 - 08:30

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	0	0	660	0.000	0	0.0	0.0	0.000	A
C-AB	7	2	609	0.011	7	0.0	0.0	5.974	A
C-A	12	3			12				
A-B	0	0			0				
A-C	9	2			9				

08:30 - 08:45

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	0	0	660	0.000	0	0.0	0.0	0.000	A
C-AB	7	2	609	0.011	7	0.0	0.0	5.974	A
C-A	12	3			12				
A-B	0	0			0				
A-C	9	2			9				

08:45 - 09:00

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	0	0	661	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	608	0.009	5	0.0	0.0	5.976	A
C-A	10	3			10				
A-B	0	0			0				
A-C	7	2			7				

Queueing Delay Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.000	A
C-AB	0.14	0.01	5.973	A

08:15 - 08:30

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	0.00	0.00	0.000	A
C-AB	0.18	0.01	5.974	A

08:30 - 08:45

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	0.00	0.00	0.000	A
C-AB	0.18	0.01	5.974	A

08:45 - 09:00

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	0.00	0.00	0.000	A
C-AB	0.14	0.01	5.976	A

Queue Variation Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.01	0.25	0.45	0.48			N/A	N/A

08:15 - 08:30

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:30 - 08:45

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:45 - 09:00

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	0.00	0.00	0.00	0.00	0.00			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: 08:00-08:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.16	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:15-08:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.20	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:30-08:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.20	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:45-09:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.16	0.01
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 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.16	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.20	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.20	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.16	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.32	46.65	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.32	46.65	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.32	46.65	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.32	46.65	0.00

2031 Baseline + Generated, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D9 - 2031 Baseline + Generated, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			1.38	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	2031 Baseline + Generated	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D4+D7

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 - L7049 (South)		ONE HOUR	✓	8	100.000
B - Site Access		ONE HOUR	✓	4	100.000
C - L7049 (North)		ONE HOUR	✓	18	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	8
	B - Site Access	0	0	4
	C - L7049 (North)	12	6	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L7049 (North)	0.67	0.33	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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)
07:45-08:00	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	14	14
08:00-08:15	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	16	16
08:15-08:30	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	20	20
08:30-08:45	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	20	20
08:45-09:00	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	16	16
09:00-09:15	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	14	14

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-AB	0.01	5.97	0.0	0.5	A	6	6	0.64	6.30	0.01	0.88	6.27
C-A						12	12					
A-B						0	0					
A-C						8	8					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	1.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.62	46.95	0.00

Main Results for each time segment

08:00 - 08:15

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	0	0	661	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	608	0.009	5	0.0	0.0	5.970	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

08:15 - 08:30

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	0	0	660	0.000	0	0.0	0.0	0.000	A
C-AB	7	2	610	0.011	7	0.0	0.0	5.970	A
C-A	13	3			13				
A-B	0	0			0				
A-C	9	2			9				

08:30 - 08:45

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	0	0	660	0.000	0	0.0	0.0	0.000	A
C-AB	7	2	610	0.011	7	0.0	0.0	5.970	A
C-A	13	3			13				
A-B	0	0			0				
A-C	9	2			9				

08:45 - 09:00

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	0	0	661	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	608	0.009	6	0.0	0.0	5.970	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

Queueing Delay Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.000	A
C-AB	0.14	0.01	5.970	A

08:15 - 08:30

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	0.00	0.00	0.000	A
C-AB	0.18	0.01	5.970	A

08:30 - 08:45

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	0.00	0.00	0.000	A
C-AB	0.18	0.01	5.970	A

08:45 - 09:00

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	0.00	0.00	0.000	A
C-AB	0.14	0.01	5.970	A

Queue Variation Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.01	0.25	0.45	0.48			N/A	N/A

08:15 - 08:30

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:30 - 08:45

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:45 - 09:00

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	0.00	0.00	0.00	0.00	0.00			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: 08:00-08:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.16	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:15-08:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.20	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:30-08:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.20	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:45-09:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.16	0.01
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 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.16	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.20	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.20	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.16	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.31	46.65	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.31	46.65	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.31	46.65	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.31	46.65	0.00

2033 Baseline + Generated, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D10 - 2033 Baseline + Generated, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			1.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D10	2033 Baseline + Generated	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D5+D7

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 - L7049 (South)		ONE HOUR	✓	9	100.000
B - Site Access		ONE HOUR	✓	4	100.000
C - L7049 (North)		ONE HOUR	✓	18	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	9
	B - Site Access	0	0	4
	C - L7049 (North)	12	6	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L7049 (North)	0.67	0.33	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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)
07:45-08:00	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	14	14
08:00-08:15	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	16	16
08:15-08:30	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	20	20
08:30-08:45	A - L7049 (South)	9	9
	B - Site Access	0	0
	C - L7049 (North)	20	20
08:45-09:00	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	16	16
09:00-09:15	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	14	14

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-AB	0.01	5.97	0.0	0.5	A	6	6	0.64	6.30	0.01	0.88	6.28
C-A						12	12					
A-B						0	0					
A-C						9	9					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	1.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.62	46.95	0.00

Main Results for each time segment

08:00 - 08:15

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	0	0	661	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	608	0.009	5	0.0	0.0	5.969	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

08:15 - 08:30

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	0	0	660	0.000	0	0.0	0.0	0.000	A
C-AB	7	2	610	0.011	7	0.0	0.0	5.969	A
C-A	13	3			13				
A-B	0	0			0				
A-C	9	2			9				

08:30 - 08:45

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	0	0	660	0.000	0	0.0	0.0	0.000	A
C-AB	7	2	610	0.011	7	0.0	0.0	5.972	A
C-A	13	3			13				
A-B	0	0			0				
A-C	9	2			9				

08:45 - 09:00

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	0	0	661	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	608	0.009	6	0.0	0.0	5.972	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

Queueing Delay Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.000	A
C-AB	0.14	0.01	5.969	A

08:15 - 08:30

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	0.00	0.00	0.000	A
C-AB	0.18	0.01	5.969	A

08:30 - 08:45

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	0.00	0.00	0.000	A
C-AB	0.18	0.01	5.972	A

08:45 - 09:00

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	0.00	0.00	0.000	A
C-AB	0.14	0.01	5.972	A

Queue Variation Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.01	0.25	0.45	0.48			N/A	N/A

08:15 - 08:30

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:30 - 08:45

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:45 - 09:00

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	0.00	0.00	0.00	0.00	0.00			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: 08:00-08:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.16	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:15-08:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.20	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:30-08:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.20	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:45-09:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.16	0.01
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 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.16	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.20	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.20	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.16	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.31	46.65	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.31	46.65	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.32	46.65	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.32	46.65	0.00

2036 Baseline + Generated, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D11 - 2036 Baseline + Generated, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			1.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D11	2036 Baseline + Generated	AM	ONE HOUR	07:45	09:15	15	✓	✓	Simple	D6+D7

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 - L7049 (South)		ONE HOUR	✓	9	100.000
B - Site Access		ONE HOUR	✓	4	100.000
C - L7049 (North)		ONE HOUR	✓	18	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	9
	B - Site Access	0	0	4
	C - L7049 (North)	12	6	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L7049 (North)	0.68	0.32	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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)
07:45-08:00	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	14	14
08:00-08:15	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	17	17
08:15-08:30	A - L7049 (South)	10	10
	B - Site Access	0	0
	C - L7049 (North)	20	20
08:30-08:45	A - L7049 (South)	10	10
	B - Site Access	0	0
	C - L7049 (North)	20	20
08:45-09:00	A - L7049 (South)	8	8
	B - Site Access	0	0
	C - L7049 (North)	17	17
09:00-09:15	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	14	14

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-AB	0.01	5.97	0.0	0.5	A	6	6	0.64	6.31	0.01	0.88	6.28
C-A						12	12					
A-B						0	0					
A-C						9	9					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	1.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.63	46.96	0.00

Main Results for each time segment

08:00 - 08:15

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	0	0	661	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	609	0.009	5	0.0	0.0	5.968	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

08:15 - 08:30

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	0	0	660	0.000	0	0.0	0.0	0.000	A
C-AB	7	2	610	0.011	7	0.0	0.0	5.968	A
C-A	14	3			14				
A-B	0	0			0				
A-C	10	2			10				

08:30 - 08:45

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	0	0	660	0.000	0	0.0	0.0	0.000	A
C-AB	7	2	610	0.011	7	0.0	0.0	5.970	A
C-A	14	3			14				
A-B	0	0			0				
A-C	10	2			10				

08:45 - 09:00

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	0	0	661	0.000	0	0.0	0.0	0.000	A
C-AB	5	1	609	0.009	6	0.0	0.0	5.971	A
C-A	11	3			11				
A-B	0	0			0				
A-C	8	2			8				

Queueing Delay Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.000	A
C-AB	0.14	0.01	5.968	A

08:15 - 08:30

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	0.00	0.00	0.000	A
C-AB	0.18	0.01	5.968	A

08:30 - 08:45

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	0.00	0.00	0.000	A
C-AB	0.18	0.01	5.970	A

08:45 - 09:00

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	0.00	0.00	0.000	A
C-AB	0.14	0.01	5.971	A

Queue Variation Results for each time segment

08:00 - 08:15

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.01	0.25	0.45	0.48			N/A	N/A

08:15 - 08:30

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:30 - 08:45

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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:45 - 09:00

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	0.00	0.00	0.00	0.00	0.00			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: 08:00-08:15

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.16	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:15-08:30

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.20	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:30-08:45

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.20	0.01
C-A	0.00	0.00
A-B	0.00	0.00
A-C	0.00	0.00

Geometric Delay results: 08:45-09:00

Stream	Geometric total delay (Veh-min)	Geometric rate of delay (Veh-min/min)
B-AC	0.00	0.00
C-AB	0.16	0.01
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 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.16	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.20	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.20	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.16	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:00-08:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.31	46.64	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:15-08:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.31	46.64	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:30-08:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.31	46.65	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 08:45-09:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	36.32	46.65	0.00

2026 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D14 - 2026 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D14	2026 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D13*1.0363

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 - L7049 (South)		ONE HOUR	✓	6	100.000
B - Site Access		ONE HOUR	✓	0	100.000
C - L7049 (North)		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	6
	B - Site Access	0	0	0
	C - L7049 (North)	17	0	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.33	0.33	0.33
	C - L7049 (North)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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 - L7049 (South)	4	4
	B - Site Access	0	0
	C - L7049 (North)	13	13
17:00-17:15	A - L7049 (South)	5	5
	B - Site Access	0	0
	C - L7049 (North)	15	15
17:15-17:30	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	19	19
17:30-17:45	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	19	19
17:45-18:00	A - L7049 (South)	5	5
	B - Site Access	0	0
	C - L7049 (North)	15	15
18:00-18:15	A - L7049 (South)	4	4
	B - Site Access	0	0
	C - L7049 (North)	13	13

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-AB	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-A						17	17					
A-B						0	0					
A-C						6	6					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	602	0.000	0	0.0	0.0	0.000	A
C-A	15	4			15				
A-B	0	0			0				
A-C	5	1			5				

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	19	5			19				
A-B	0	0			0				
A-C	6	2			6				

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	19	5			19				
A-B	0	0			0				
A-C	6	2			6				

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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	602	0.000	0	0.0	0.0	0.000	A
C-A	15	4			15				
A-B	0	0			0				
A-C	5	1			5				

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
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 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

2031 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D15 - 2031 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D15	2031 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D13*1.1069

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 - L7049 (South)		ONE HOUR	✓	6	100.000
B - Site Access		ONE HOUR	✓	0	100.000
C - L7049 (North)		ONE HOUR	✓	18	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	6
	B - Site Access	0	0	0
	C - L7049 (North)	18	0	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.33	0.33	0.33
	C - L7049 (North)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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 - L7049 (South)	5	5
	B - Site Access	0	0
	C - L7049 (North)	14	14
17:00-17:15	A - L7049 (South)	5	5
	B - Site Access	0	0
	C - L7049 (North)	16	16
17:15-17:30	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	20	20
17:30-17:45	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	20	20
17:45-18:00	A - L7049 (South)	5	5
	B - Site Access	0	0
	C - L7049 (North)	16	16
18:00-18:15	A - L7049 (South)	5	5
	B - Site Access	0	0
	C - L7049 (North)	14	14

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-AB	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-A						18	18					
A-B						0	0					
A-C						6	6					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	602	0.000	0	0.0	0.0	0.000	A
C-A	16	4			16				
A-B	0	0			0				
A-C	5	1			5				

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	20	5			20				
A-B	0	0			0				
A-C	7	2			7				

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	20	5			20				
A-B	0	0			0				
A-C	7	2			7				

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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	602	0.000	0	0.0	0.0	0.000	A
C-A	16	4			16				
A-B	0	0			0				
A-C	5	1			5				

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
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 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

2033 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D16 - 2033 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D16	2033 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D13*1.1207

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 - L7049 (South)		ONE HOUR	✓	6	100.000
B - Site Access		ONE HOUR	✓	0	100.000
C - L7049 (North)		ONE HOUR	✓	18	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	6
	B - Site Access	0	0	0
	C - L7049 (North)	18	0	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.33	0.33	0.33
	C - L7049 (North)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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 - L7049 (South)	5	5
	B - Site Access	0	0
	C - L7049 (North)	14	14
17:00-17:15	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	17	17
17:15-17:30	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	20	20
17:30-17:45	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	20	20
17:45-18:00	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	17	17
18:00-18:15	A - L7049 (South)	5	5
	B - Site Access	0	0
	C - L7049 (North)	14	14

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-AB	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-A						18	18					
A-B						0	0					
A-C						6	6					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	602	0.000	0	0.0	0.0	0.000	A
C-A	17	4			17				
A-B	0	0			0				
A-C	6	1			6				

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	20	5			20				
A-B	0	0			0				
A-C	7	2			7				

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	20	5			20				
A-B	0	0			0				
A-C	7	2			7				

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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	602	0.000	0	0.0	0.0	0.000	A
C-A	17	4			17				
A-B	0	0			0				
A-C	6	1			6				

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
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 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

2036 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D17 - 2036 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D17	2036 Baseline	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D13*1.1417

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 - L7049 (South)		ONE HOUR	✓	6	100.000
B - Site Access		ONE HOUR	✓	0	100.000
C - L7049 (North)		ONE HOUR	✓	19	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	6
	B - Site Access	0	0	0
	C - L7049 (North)	19	0	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.33	0.33	0.33
	C - L7049 (North)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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 - L7049 (South)	5	5
	B - Site Access	0	0
	C - L7049 (North)	14	14
17:00-17:15	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	17	17
17:15-17:30	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	21	21
17:30-17:45	A - L7049 (South)	7	7
	B - Site Access	0	0
	C - L7049 (North)	21	21
17:45-18:00	A - L7049 (South)	6	6
	B - Site Access	0	0
	C - L7049 (North)	17	17
18:00-18:15	A - L7049 (South)	5	5
	B - Site Access	0	0
	C - L7049 (North)	14	14

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	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-AB	0.00	0.00	0.0	~1	A	0	0	0.00	0.00	0.00	0.00	0.00
C-A						19	19					
A-B						0	0					
A-C						6	6					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	602	0.000	0	0.0	0.0	0.000	A
C-A	17	4			17				
A-B	0	0			0				
A-C	6	1			6				

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	21	5			21				
A-B	0	0			0				
A-C	7	2			7				

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	0	0	662	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	601	0.000	0	0.0	0.0	0.000	A
C-A	21	5			21				
A-B	0	0			0				
A-C	7	2			7				

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	0	0	663	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	602	0.000	0	0.0	0.0	0.000	A
C-A	17	4			17				
A-B	0	0			0				
A-C	6	1			6				

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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.000	A
C-AB	0.00	0.00	0.000	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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
C-A	0.00	0.00
A-B	0.00	0.00
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	0.00	0.00
C-AB	0.00	0.00
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 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.00
	C - L7049 (North)	0.00	0.00	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	44.83	0.00	41.04
	C - L7049 (North)	30.34	40.68	0.00

2026 Baseline + Generated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D19 - 2026 Baseline + Generated, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			1.38	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
D19	2026 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D14+D18

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 - L7049 (South)		ONE HOUR	✓	6	100.000
B - Site Access		ONE HOUR	✓	5	100.000
C - L7049 (North)		ONE HOUR	✓	20	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	6
	B - Site Access	0	0	5
	C - L7049 (North)	17	3	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L7049 (North)	0.85	0.15	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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 - L7049 (South)	4	4
	B - Site Access	4	4
	C - L7049 (North)	15	15
17:00-17:15	A - L7049 (South)	5	5
	B - Site Access	4	4
	C - L7049 (North)	18	18
17:15-17:30	A - L7049 (South)	6	6
	B - Site Access	6	6
	C - L7049 (North)	22	22
17:30-17:45	A - L7049 (South)	6	6
	B - Site Access	6	6
	C - L7049 (North)	22	22
17:45-18:00	A - L7049 (South)	5	5
	B - Site Access	4	4
	C - L7049 (North)	18	18
18:00-18:15	A - L7049 (South)	4	4
	B - Site Access	4	4
	C - L7049 (North)	15	15

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	4.80	0.0	0.5	A	5	5	0.40	4.77	0.00	0.55	4.77
C-AB	0.01	5.91	0.0	0.5	A	3	3	0.32	6.17	0.00	0.43	6.15
C-A						17	17					
A-B						0	0					
A-C						6	6					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.88
	C - L7049 (North)	0.00	0.50	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.59	0.00	45.81
	C - L7049 (North)	36.49	46.82	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	4	1	756	0.006	4	0.0	0.0	4.789	A
C-AB	3	0.69	612	0.005	3	0.0	0.0	5.909	A
C-A	15	4			15				
A-B	0	0			0				
A-C	5	1			5				

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	6	1	756	0.007	5	0.0	0.0	4.798	A
C-AB	3	0.85	614	0.006	3	0.0	0.0	5.895	A
C-A	19	5			19				
A-B	0	0			0				
A-C	6	2			6				

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	6	1	756	0.007	6	0.0	0.0	4.798	A
C-AB	3	0.85	614	0.006	3	0.0	0.0	5.898	A
C-A	19	5			19				
A-B	0	0			0				
A-C	6	2			6				

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	4	1	756	0.006	5	0.0	0.0	4.790	A
C-AB	3	0.69	612	0.005	3	0.0	0.0	5.911	A
C-A	15	4			15				
A-B	0	0			0				
A-C	5	1			5				

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	0.09	0.01	4.789	A
C-AB	0.07	0.00	5.909	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	0.11	0.01	4.798	A
C-AB	0.09	0.01	5.895	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	0.11	0.01	4.798	A
C-AB	0.09	0.01	5.898	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	0.09	0.01	4.790	A
C-AB	0.07	0.00	5.911	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	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	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	0.01	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

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	0.01	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

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	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.14	0.01
C-AB	0.08	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.18	0.01
C-AB	0.10	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.18	0.01
C-AB	0.10	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.14	0.01
C-AB	0.08	0.01
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 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.14
	C - L7049 (North)	0.00	0.08	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.18
	C - L7049 (North)	0.00	0.10	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.18
	C - L7049 (North)	0.00	0.10	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.14
	C - L7049 (North)	0.00	0.08	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.61	0.00	45.83
	C - L7049 (North)	36.25	46.59	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.84
	C - L7049 (North)	36.24	46.57	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.84
	C - L7049 (North)	36.24	46.57	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.83
	C - L7049 (North)	36.26	46.59	0.00

2031 Baseline + Generated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D20 - 2031 Baseline + Generated, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			1.31	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
D20	2031 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D15+D18

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 - L7049 (South)		ONE HOUR	✓	6	100.000
B - Site Access		ONE HOUR	✓	5	100.000
C - L7049 (North)		ONE HOUR	✓	21	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	6
	B - Site Access	0	0	5
	C - L7049 (North)	18	3	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L7049 (North)	0.86	0.14	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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 - L7049 (South)	5	5
	B - Site Access	4	4
	C - L7049 (North)	16	16
17:00-17:15	A - L7049 (South)	5	5
	B - Site Access	4	4
	C - L7049 (North)	19	19
17:15-17:30	A - L7049 (South)	7	7
	B - Site Access	6	6
	C - L7049 (North)	23	23
17:30-17:45	A - L7049 (South)	7	7
	B - Site Access	6	6
	C - L7049 (North)	23	23
17:45-18:00	A - L7049 (South)	5	5
	B - Site Access	4	4
	C - L7049 (North)	19	19
18:00-18:15	A - L7049 (South)	5	5
	B - Site Access	4	4
	C - L7049 (North)	16	16

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	4.80	0.0	0.5	A	5	5	0.40	4.77	0.00	0.55	4.77
C-AB	0.01	5.90	0.0	0.5	A	3	3	0.32	6.16	0.00	0.43	6.14
C-A						18	18					
A-B						0	0					
A-C						6	6					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.88
	C - L7049 (North)	0.00	0.50	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.60	0.00	45.81
	C - L7049 (North)	36.49	46.82	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	4	1	756	0.006	4	0.0	0.0	4.790	A
C-AB	3	0.69	613	0.005	3	0.0	0.0	5.903	A
C-A	16	4			16				
A-B	0	0			0				
A-C	5	1			5				

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	6	1	756	0.007	5	0.0	0.0	4.799	A
C-AB	3	0.85	615	0.006	3	0.0	0.0	5.888	A
C-A	20	5			20				
A-B	0	0			0				
A-C	7	2			7				

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	6	1	756	0.007	6	0.0	0.0	4.799	A
C-AB	3	0.85	615	0.006	3	0.0	0.0	5.888	A
C-A	20	5			20				
A-B	0	0			0				
A-C	7	2			7				

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	4	1	756	0.006	5	0.0	0.0	4.790	A
C-AB	3	0.69	613	0.005	3	0.0	0.0	5.903	A
C-A	16	4			16				
A-B	0	0			0				
A-C	5	1			5				

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	0.09	0.01	4.790	A
C-AB	0.07	0.00	5.903	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	0.11	0.01	4.799	A
C-AB	0.09	0.01	5.888	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	0.11	0.01	4.799	A
C-AB	0.09	0.01	5.888	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	0.09	0.01	4.790	A
C-AB	0.07	0.00	5.903	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	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	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	0.01	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

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	0.01	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

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	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.14	0.01
C-AB	0.08	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.18	0.01
C-AB	0.10	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.18	0.01
C-AB	0.10	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.14	0.01
C-AB	0.08	0.01
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 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.14
	C - L7049 (North)	0.00	0.08	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.18
	C - L7049 (North)	0.00	0.10	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.18
	C - L7049 (North)	0.00	0.10	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.14
	C - L7049 (North)	0.00	0.08	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.83
	C - L7049 (North)	36.25	46.58	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.84
	C - L7049 (North)	36.23	46.56	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.84
	C - L7049 (North)	36.23	46.56	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.83
	C - L7049 (North)	36.25	46.58	0.00

2033 Baseline + Generated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D21 - 2033 Baseline + Generated, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			1.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically	Relationship type	Relationship
D21	2033 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D16+D18

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 - L7049 (South)		ONE HOUR	✓	6	100.000
B - Site Access		ONE HOUR	✓	5	100.000
C - L7049 (North)		ONE HOUR	✓	21	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	6
	B - Site Access	0	0	5
	C - L7049 (North)	18	3	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L7049 (North)	0.86	0.14	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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 - L7049 (South)	5	5
	B - Site Access	4	4
	C - L7049 (North)	16	16
17:00-17:15	A - L7049 (South)	6	6
	B - Site Access	4	4
	C - L7049 (North)	19	19
17:15-17:30	A - L7049 (South)	7	7
	B - Site Access	6	6
	C - L7049 (North)	24	24
17:30-17:45	A - L7049 (South)	7	7
	B - Site Access	6	6
	C - L7049 (North)	24	24
17:45-18:00	A - L7049 (South)	6	6
	B - Site Access	4	4
	C - L7049 (North)	19	19
18:00-18:15	A - L7049 (South)	5	5
	B - Site Access	4	4
	C - L7049 (North)	16	16

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	4.80	0.0	0.5	A	5	5	0.40	4.77	0.00	0.55	4.77
C-AB	0.01	5.90	0.0	0.5	A	3	3	0.32	6.16	0.00	0.43	6.14
C-A						18	18					
A-B						0	0					
A-C						6	6					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.88
	C - L7049 (North)	0.00	0.50	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.60	0.00	45.81
	C - L7049 (North)	36.48	46.82	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	4	1	756	0.006	4	0.0	0.0	4.790	A
C-AB	3	0.69	613	0.005	3	0.0	0.0	5.902	A
C-A	16	4			16				
A-B	0	0			0				
A-C	6	1			6				

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	6	1	756	0.007	5	0.0	0.0	4.799	A
C-AB	3	0.85	615	0.006	3	0.0	0.0	5.887	A
C-A	20	5			20				
A-B	0	0			0				
A-C	7	2			7				

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	6	1	756	0.007	6	0.0	0.0	4.799	A
C-AB	3	0.85	615	0.006	3	0.0	0.0	5.887	A
C-A	20	5			20				
A-B	0	0			0				
A-C	7	2			7				

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	4	1	756	0.006	5	0.0	0.0	4.790	A
C-AB	3	0.69	613	0.005	3	0.0	0.0	5.904	A
C-A	16	4			16				
A-B	0	0			0				
A-C	6	1			6				

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	0.09	0.01	4.790	A
C-AB	0.07	0.00	5.902	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	0.11	0.01	4.799	A
C-AB	0.09	0.01	5.887	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	0.11	0.01	4.799	A
C-AB	0.09	0.01	5.887	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	0.09	0.01	4.790	A
C-AB	0.07	0.00	5.904	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	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	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	0.01	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

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	0.01	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

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	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.14	0.01
C-AB	0.08	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.18	0.01
C-AB	0.10	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.18	0.01
C-AB	0.10	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.14	0.01
C-AB	0.08	0.01
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 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.14
	C - L7049 (North)	0.00	0.08	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.18
	C - L7049 (North)	0.00	0.10	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.18
	C - L7049 (North)	0.00	0.10	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.14
	C - L7049 (North)	0.00	0.08	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.83
	C - L7049 (North)	36.25	46.58	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.84
	C - L7049 (North)	36.23	46.56	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.84
	C - L7049 (North)	36.23	46.56	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.83
	C - L7049 (North)	36.25	46.58	0.00

2036 Baseline + Generated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D22 - 2036 Baseline + Generated, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)
Warning	Demand Set Relationship	D8 - 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	Site Access - L7049 Junction	T-Junction	Two-way			1.28	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
D22	2036 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	✓	Simple	D17+D18

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 - L7049 (South)		ONE HOUR	✓	6	100.000
B - Site Access		ONE HOUR	✓	5	100.000
C - L7049 (North)		ONE HOUR	✓	22	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	6
	B - Site Access	0	0	5
	C - L7049 (North)	19	3	0

Proportions

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	1.00
	B - Site Access	0.00	0.00	1.00
	C - L7049 (North)	0.86	0.14	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0	0	0
	B - Site Access	0	0	0
	C - L7049 (North)	0	0	0

Average PCU Per Veh

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	1.000	1.000	1.000
	B - Site Access	1.000	1.000	1.000
	C - L7049 (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 - L7049 (South)	5	5
	B - Site Access	4	4
	C - L7049 (North)	16	16
17:00-17:15	A - L7049 (South)	6	6
	B - Site Access	4	4
	C - L7049 (North)	20	20
17:15-17:30	A - L7049 (South)	7	7
	B - Site Access	6	6
	C - L7049 (North)	24	24
17:30-17:45	A - L7049 (South)	7	7
	B - Site Access	6	6
	C - L7049 (North)	24	24
17:45-18:00	A - L7049 (South)	6	6
	B - Site Access	4	4
	C - L7049 (North)	20	20
18:00-18:15	A - L7049 (South)	5	5
	B - Site Access	4	4
	C - L7049 (North)	16	16

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	4.80	0.0	0.5	A	5	5	0.40	4.77	0.00	0.55	4.77
C-AB	0.01	5.90	0.0	0.5	A	3	3	0.32	6.16	0.00	0.43	6.14
C-A						19	19					
A-B						0	0					
A-C						6	6					

Geometric Delay Results for modelled period

Geometric Delay per light vehicle (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	9.82	0.00
	B - Site Access	11.45	0.00	7.66
	C - L7049 (North)	0.00	7.30	0.00

Inclusive Geometric Delay (Veh-min) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.88
	C - L7049 (North)	0.00	0.50	0.00

Point to Point Journey Times Summary (s) - 1 - Site Access - L7049 Junction

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.60	0.00	45.81
	C - L7049 (North)	36.48	46.81	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	4	1	756	0.006	4	0.0	0.0	4.790	A
C-AB	3	0.69	613	0.005	3	0.0	0.0	5.900	A
C-A	17	4			17				
A-B	0	0			0				
A-C	6	1			6				

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	6	1	755	0.007	5	0.0	0.0	4.799	A
C-AB	3	0.85	615	0.006	3	0.0	0.0	5.885	A
C-A	20	5			20				
A-B	0	0			0				
A-C	7	2			7				

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	6	1	755	0.007	6	0.0	0.0	4.799	A
C-AB	3	0.85	615	0.006	3	0.0	0.0	5.887	A
C-A	20	5			20				
A-B	0	0			0				
A-C	7	2			7				

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	4	1	756	0.006	5	0.0	0.0	4.790	A
C-AB	3	0.69	613	0.005	3	0.0	0.0	5.902	A
C-A	17	4			17				
A-B	0	0			0				
A-C	6	1			6				

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	0.09	0.01	4.790	A
C-AB	0.07	0.00	5.900	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	0.11	0.01	4.799	A
C-AB	0.09	0.01	5.885	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	0.11	0.01	4.799	A
C-AB	0.09	0.01	5.887	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	0.09	0.01	4.790	A
C-AB	0.07	0.00	5.902	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	0.01	0.01	0.25	0.45	0.48			N/A	N/A
C-AB	0.00	0.00	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	0.01	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

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	0.01	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

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	0.01	0.00	0.00	0.01	0.01			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			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	0.14	0.01
C-AB	0.08	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.18	0.01
C-AB	0.10	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.18	0.01
C-AB	0.10	0.01
C-A	0.00	0.00
A-B	0.00	0.00
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	0.14	0.01
C-AB	0.08	0.01
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 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.14
	C - L7049 (North)	0.00	0.08	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.18
	C - L7049 (North)	0.00	0.10	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.18
	C - L7049 (North)	0.00	0.10	0.00

Total Geometric Delay By Turn (Veh-min) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)

From	A - L7049 (South)	0.00	0.00	0.00
	B - Site Access	0.00	0.00	0.14
	C - L7049 (North)	0.00	0.08	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:00-17:15

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.83
	C - L7049 (North)	36.24	46.58	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:15-17:30

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.84
	C - L7049 (North)	36.23	46.56	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:30-17:45

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.84
	C - L7049 (North)	36.23	46.56	0.00

Point to Point Journey Times By Turn (s) - 1 - Site Access - L7049 Junction - 17:45-18:00

		To		
		A - L7049 (South)	B - Site Access	C - L7049 (North)
From	A - L7049 (South)	0.00	43.20	30.34
	B - Site Access	49.62	0.00	45.83
	C - L7049 (North)	36.25	46.58	0.00

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896

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

Filename: Ballykelly Cross Junction ver1.j9
Path: C:\Users\kevin\Desktop\WSP\Ballykelly Quarry\S37L
Report generation date: 12/05/2025 11:48:57

Summary of junction performance

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2026 Baseline															
Stream B-ACD	0.0	0.5	6.17	0.02	A	0.62	A	581 % [Stream D-ABC]	0.0	0.5	6.40	0.01	A	0.61	A	537 % [Stream B-ACD]
Stream A-BCD	0.0	0.5	5.82	0.01	A				0.0	0.5	5.86	0.02	A			
Stream D-ABC	0.0	0.5	5.91	0.03	A				0.0	0.5	5.86	0.03	A			
Stream C-ABD	0.0	0.5	5.78	0.00	A				0.0	~1	0.00	0.00	A			
	2031 Baseline															
Stream B-ACD	0.0	0.5	6.22	0.02	A	0.62	A	538 % [Stream B-ACD]	0.0	0.5	6.46	0.01	A	0.61	A	497 % [Stream B-ACD]
Stream A-BCD	0.0	0.5	5.79	0.01	A				0.0	0.5	5.83	0.02	A			
Stream D-ABC	0.0	0.5	5.96	0.03	A				0.0	0.5	5.91	0.03	A			
Stream C-ABD	0.0	0.5	5.74	0.00	A				0.0	~1	0.00	0.00	A			
	2033 Baseline															
Stream B-ACD	0.0	0.5	6.23	0.02	A	0.62	A	529 % [Stream D-ABC]	0.0	0.5	6.47	0.01	A	0.62	A	489 % [Stream B-ACD]
Stream A-BCD	0.0	0.5	5.79	0.01	A				0.0	0.5	5.83	0.02	A			
Stream D-ABC	0.0	0.5	5.97	0.03	A				0.0	0.5	5.92	0.03	A			
Stream C-ABD	0.0	0.5	5.74	0.00	A				0.0	~1	0.00	0.00	A			
	2036 Baseline															
Stream B-ACD	0.0	0.5	6.25	0.02	A	0.63	A	518 % [Stream D-ABC]	0.0	0.5	6.49	0.01	A	0.62	A	478 % [Stream B-ACD]
Stream A-BCD	0.0	0.5	5.78	0.01	A				0.0	0.5	5.82	0.02	A			
Stream D-ABC	0.0	0.5	5.99	0.03	A				0.0	0.5	5.94	0.04	A			
Stream C-ABD	0.0	0.5	5.73	0.00	A				0.0	~1	0.00	0.00	A			
	2026 Baseline + Generated															
Stream B-ACD	0.0	0.5	6.35	0.02	A	0.80	A	524 % [Stream D-ABC]	0.0	0.5	6.51	0.02	A	0.79	A	486 % [Stream D-ABC]
Stream A-BCD	0.0	0.5	5.84	0.01	A				0.0	0.5	5.88	0.02	A			
Stream D-ABC	0.0	0.5	6.06	0.04	A				0.0	0.5	6.00	0.04	A			
Stream C-ABD	0.0	0.5	5.77	0.00	A				0.0	~1	0.00	0.00	A			
	2031 Baseline + Generated															
Stream B-ACD	0.0	0.5	6.40	0.02	A	0.80	A	487 % [Stream D-ABC]	0.0	0.5	6.57	0.02	A	0.78	A	451 % [Stream D-ABC]
Stream A-BCD	0.0	0.5	5.81	0.02	A				0.0	0.5	5.85	0.02	A			
Stream D-ABC	0.0	0.5	6.11	0.04	A				0.0	0.5	6.06	0.05	A			
Stream C-ABD	0.0	0.5	5.73	0.00	A				0.0	~1	0.00	0.00	A			
	2033 Baseline + Generated															
Stream B-ACD	0.0	0.5	6.41	0.02	A	0.80	A	480 % [Stream D-ABC]	0.0	0.5	6.58	0.02	A	0.78	A	445 % [Stream D-ABC]
Stream A-BCD	0.0	0.5	5.81	0.02	A				0.0	0.5	5.84	0.02	A			
Stream D-ABC	0.0	0.5	6.12	0.04	A				0.0	0.5	6.07	0.05	A			
Stream C-ABD	0.0	0.5	5.73	0.00	A				0.0	~1	0.00	0.00	A			
	2036 Baseline + Generated															
Stream B-ACD	0.0	0.5	6.42	0.03	A	0.80	A	470 % [Stream D-ABC]	0.0	0.5	6.60	0.02	A	0.78	A	435 % [Stream D-ABC]
Stream A-BCD	0.0	0.5	5.80	0.02	A				0.0	0.5	5.84	0.02	A			
Stream D-ABC	0.0	0.5	6.13	0.04	A				0.1	0.5	6.09	0.05	A			
Stream C-ABD	0.0	0.5	5.72	0.00	A				0.0	~1	0.00	0.00	A			

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	12/03/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SMR\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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Analysis Set Details

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

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D22	2036 Baseline + Generated	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D17+D18

2036 Baseline + Generated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue Variations cannot be calculated for crossroads.
Warning	Demand Set Relationship	D8 - 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	Junction Delay (s)	Junction LOS
1	Ballykelly Cross	Crossroads	Two-way		0.78	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	435	Stream D-ABC

Arms

Arms

Arm	Name	Description	Arm type
A	R414 (North)		Major
B	L7012		Minor
C	R414 (South)		Major
D	L7049		Minor

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)
A - R414 (North)	6.34			0.0	✓	0.00
C - R414 (South)	6.34			0.0	✓	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 - L7012	One lane	5.00	22	17
D - L7049	One lane	5.00	18	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	574	-	-	-	-	-	-	0.219	0.313	0.219	-	-	-
1	B-A	592	0.106	0.268	0.268	-	-	-	0.169	0.384	-	0.268	0.268	0.134
1	B-C	762	0.115	0.291	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	592	0.106	0.268	0.268	-	-	-	0.169	0.384	0.169	-	-	-
1	B-D, offside lane	592	0.106	0.268	0.268	-	-	-	0.169	0.384	0.169	-	-	-
1	C-B	574	0.219	0.219	0.313	-	-	-	-	-	-	-	-	-
1	D-A	760	-	-	-	-	-	-	0.290	-	0.115	-	-	-
1	D-B, nearside lane	589	0.168	0.168	0.382	-	-	-	0.267	0.267	0.106	-	-	-
1	D-B, offside lane	589	0.168	0.168	0.382	-	-	-	0.267	0.267	0.106	-	-	-
1	D-C	589	-	0.168	0.382	0.134	0.267	0.267	0.267	0.267	0.106	-	-	-

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

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R414 (North)		ONE HOUR	✓	163	100.000
B - L7012		ONE HOUR	✓	8	100.000
C - R414 (South)		ONE HOUR	✓	175	100.000
D - L7049		ONE HOUR	✓	27	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - R414 (North)	B - L7012	C - R414 (South)	D - L7049
From	A - R414 (North)	0	0	154	9
	B - L7012	2	0	2	3
	C - R414 (South)	171	0	0	3
	D - L7049	18	7	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - R414 (North)	B - L7012	C - R414 (South)	D - L7049
From	A - R414 (North)	0	0	0	0
	B - L7012	0	0	0	0
	C - R414 (South)	0	0	0	0
	D - L7049	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.02	6.60	0.0	0.5	A	8	12
A-BCD	0.02	5.84	0.0	0.5	A	11	17
A-B						0	0
A-C						138	207
D-ABC	0.05	6.09	0.1	0.5	A	25	37
C-ABD	0.00	0.00	0.0	~1	A	0	0
C-D						3	5
C-A						157	235

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	6	2	580	0.011	6	0.0	0.0	6.274	A
A-BCD	9	2	626	0.014	9	0.0	0.0	5.834	A
A-B	0	0			0				
A-C	114	28			114				
D-ABC	20	5	644	0.032	20	0.0	0.0	5.773	A
C-ABD	0	0	546	0.000	0	0.0	0.0	0.000	A
C-D	3	0.66			3				
C-A	129	32			129				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	2	570	0.013	8	0.0	0.0	6.405	A
A-BCD	11	3	636	0.017	11	0.0	0.0	5.756	A

A-B	0	0			0				
A-C	136	34			136				
D-ABC	24	6	634	0.038	24	0.0	0.0	5.902	A
C-ABD	0	0	541	0.000	0	0.0	0.0	0.000	A
C-D	3	0.79			3				
C-A	154	38			154				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	9	2	555	0.017	9	0.0	0.0	6.595	A
A-BCD	14	4	651	0.022	14	0.0	0.0	5.652	A
A-B	0	0			0				
A-C	165	41			165				
D-ABC	30	7	621	0.048	30	0.0	0.0	6.086	A
C-ABD	0	0	534	0.000	0	0.0	0.0	0.000	A
C-D	4	0.96			4				
C-A	188	47			188				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	9	2	555	0.017	9	0.0	0.0	6.595	A
A-BCD	14	4	651	0.022	14	0.0	0.0	5.652	A
A-B	0	0			0				
A-C	165	41			165				
D-ABC	30	7	621	0.048	30	0.0	0.1	6.086	A
C-ABD	0	0	534	0.000	0	0.0	0.0	0.000	A
C-D	4	0.96			4				
C-A	188	47			188				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	2	570	0.013	8	0.0	0.0	6.408	A
A-BCD	11	3	636	0.017	11	0.0	0.0	5.759	A
A-B	0	0			0				
A-C	136	34			136				
D-ABC	24	6	634	0.038	24	0.1	0.0	5.905	A
C-ABD	0	0	541	0.000	0	0.0	0.0	0.000	A
C-D	3	0.79			3				
C-A	154	38			154				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	6	2	580	0.011	6	0.0	0.0	6.277	A
A-BCD	9	2	626	0.014	9	0.0	0.0	5.836	A
A-B	0	0			0				
A-C	114	28			114				
D-ABC	20	5	644	0.032	20	0.0	0.0	5.776	A
C-ABD	0	0	546	0.000	0	0.0	0.0	0.000	A
C-D	3	0.66			3				
C-A	129	32			129				

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
A-BCD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-ABD	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.01	0.01	0.25	0.45	0.48			N/A	N/A
A-BCD	0.02	0.02	0.25	0.45	0.48			N/A	N/A
D-ABC	0.04	0.03	0.25	0.45	0.48			N/A	N/A
C-ABD	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.05	0.03	0.26	0.46	0.49			N/A	N/A
C-ABD	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-ABD	0.00	0.00	0.00	0.00	0.00			N/A	N/A

17:45 - 18:00

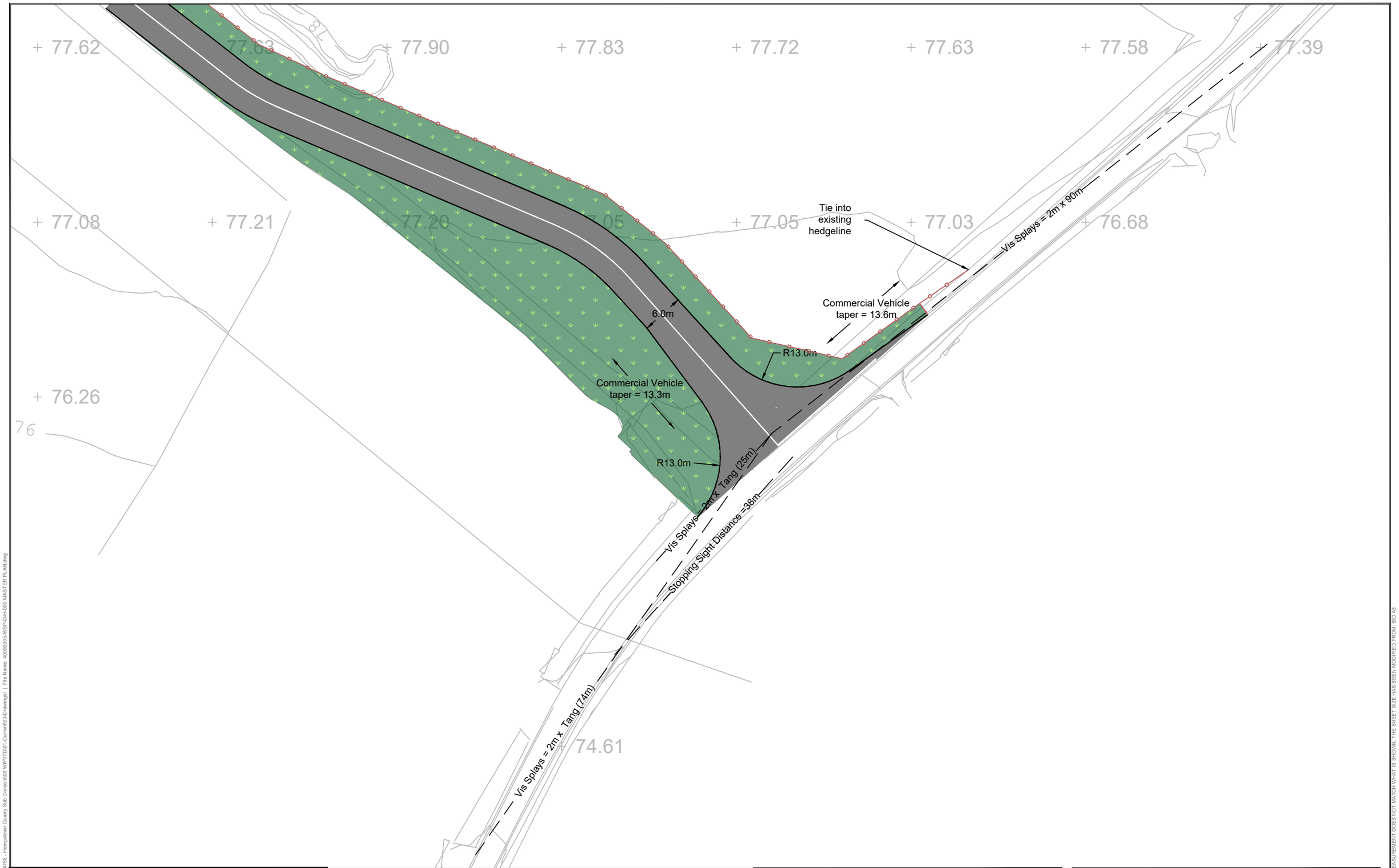
Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
A-BCD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-ABD	0.00	0.00	0.00	0.00	0.00			N/A	N/A

18:00 - 18:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.01	0.00	0.00	0.01	0.01			N/A	N/A
A-BCD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
D-ABC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-ABD	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Appendix 12B

DRAWINGS



LEGEND

- PROPOSED BITUMINOUS CARRIAGEWAY
- PROPOSED KERB
- PROPOSED ROAD MARKINGS
- VISIBILITY SPLAY
- PROPOSED LANDSCAPING
- PROPOSED FENCELINE

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2024-12-09
PREPARED	ZR
DESIGN	ZR
REVIEW	KH
APPROVED	CB

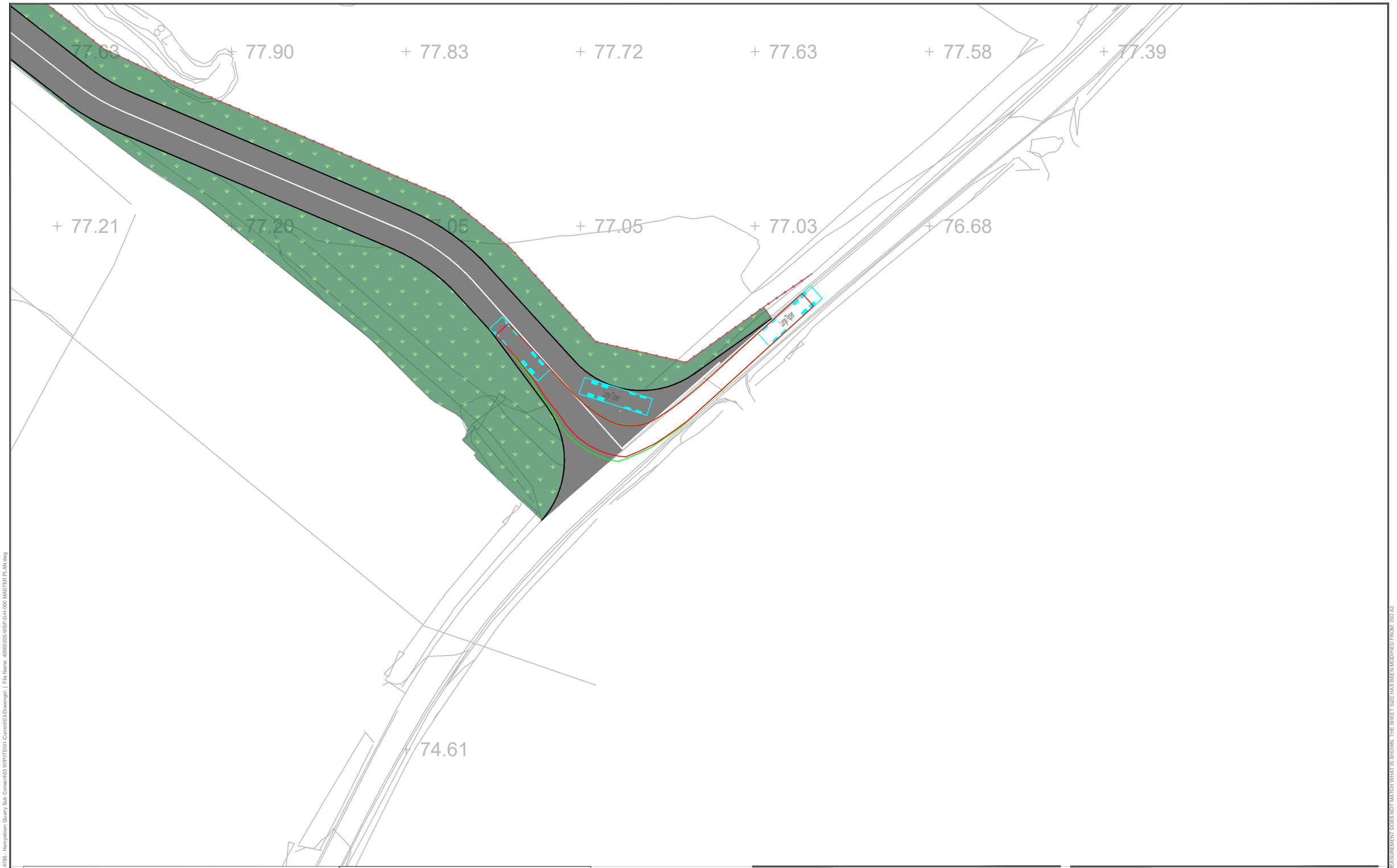
PROJECT

QUARRY RESTORATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

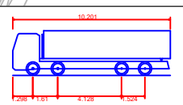
PROPOSED SITE LAYOUT

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	01	C	1:500 A3



LEGEND

- PROPOSED BITUMINOUS CARRIAGEWAY
- PROPOSED KERB
- PROPOSED ROAD MARKINGS
- VISIBILITY SPLAY
- PROPOSED LANDSCAPING
- PROPOSED FENCELINE



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

CLIENT

BISON QUARRIES LTD

CONSULTANT

PROJECT

QUARRY RESTORATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

VEHICLE SWEPT PATH ANALYSIS - INBOUND VEHICLE

YYYY-MM-DD	2024-12-09
PREPARED	ZR
DESIGN	ZR
REVIEW	KH
APPROVED	CB

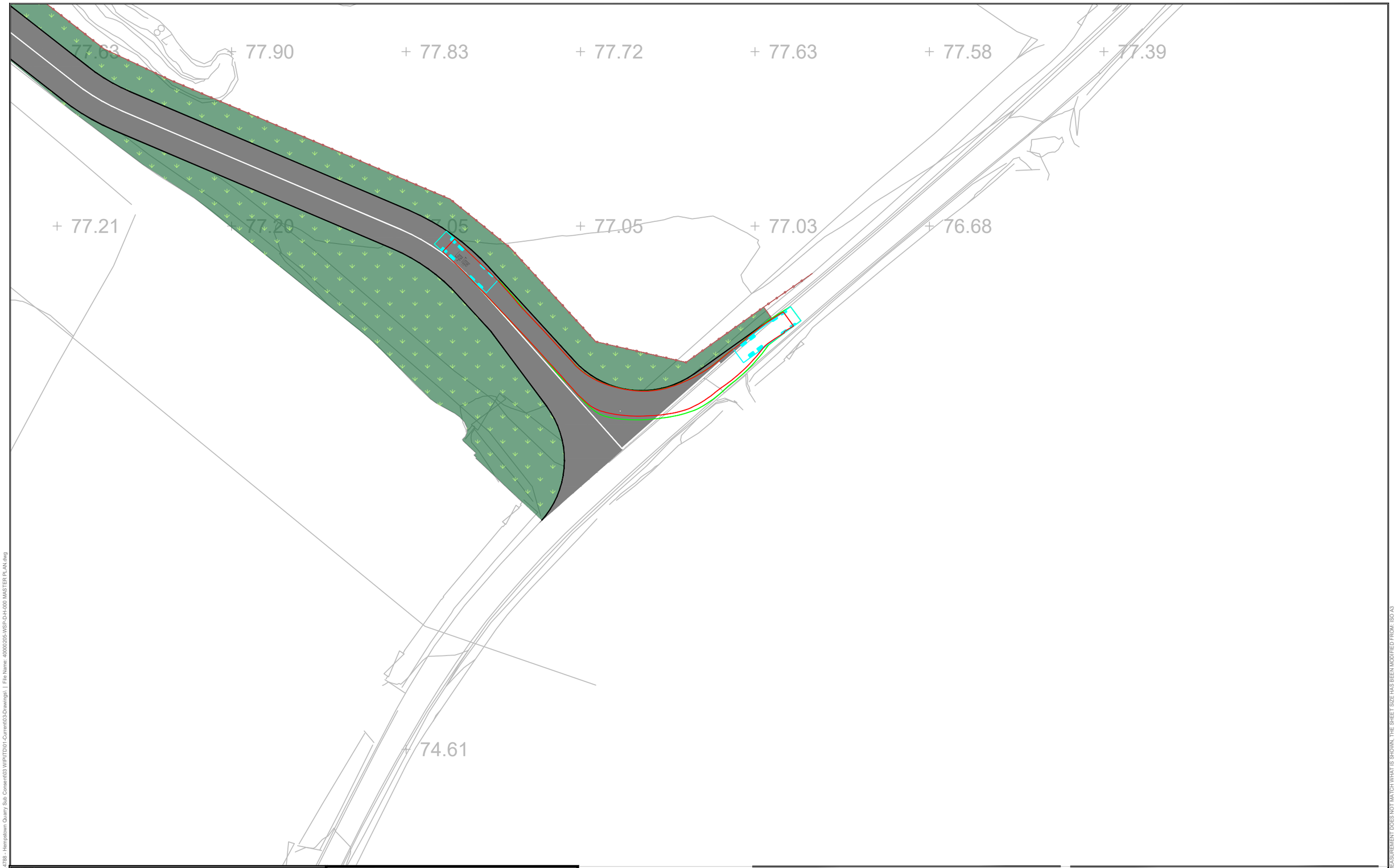
PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	02	C	1:500 A3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3

25 mm

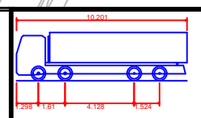
0

Path: \\corp\glokal\IE\Projects\IE\037xx\IE037007.4788 - Hempstown Quarry Sub Consent\03 WIP\ITD\01-Current\03-Drawings\ | File Name: 40000205-WSP-DJH-000 MASTER PLAN.dwg



LEGEND

- PROPOSED BITUMINOUS CARRIAGEWAY
- PROPOSED KERB
- PROPOSED ROAD MARKINGS
- VISIBILITY SPLAY
- PROPOSED LANDSCAPING
- PROPOSED FENCELINE



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

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2024-12-09
PREPARED	ZR
DESIGN	ZR
REVIEW	KH
APPROVED	CB

PROJECT

QUARRY RESTORATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

VEHICLE SWEPT PATH BOUNDARY - OUTBOUND VEHICLE

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	03	C	1:500 A3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3

25 mm

0

Path: \\corp\global\IE\Projects\IE\037xx\IE0037007.4786 - Hempstown Quarry Sub Consent\03 WIP\ITD\01-Current\03-Drawings\ | File Name: 40000205-WSP-D-H-000 MASTER PLAN.dwg

Tie into existing hedgeline

Commercial Vehicle taper = 13.6m

6.0m

R13.0m

Commercial Vehicle taper = 13.3m

R13.0m

L7049

Legend

Large Tipper

Haulage Vehicle

Vehicle Profile

Large Tipper	
Overall Length	10.201m
Overall Width	2.495m
Overall Body Height	2.890m
Min Body Ground Clearance	0.241m
Track Width	2.311m
Lock to lock time	6.000
Kerb to Kerb Turning Radius	11.550m

0 20 40 60m

1:1,000

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

L7049/SITE ENTRANCE OUTBOUND

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1200	A	1:500 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\Central_Data\Projects\41100\xx\41107437 - WSP IRE-SHILLELAGH QUARRY-CAD\41 MI\002-Tech Info\01-Current\007-Incoming\FROM DAMIAN\Visibility Splays and Ready Dimension Drawings\ | File Name: Elar Ballykeldy Bison Appendix 12B.dwg

Tie into existing hedgeline

Commercial Vehicle taper = 13.6m

R13.0m

6.0m

Commercial Vehicle taper = 13.3m

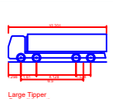
R13.0m

L7049

Legend

Haulage Vehicle

Vehicle Profile



Large Tipper	
Overall Length	10.201m
Overall Width	2.495m
Overall Body Height	2.890m
Min Body Ground Clearance	0.241m
Track Width	2.311m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

0 20 40 60m

1:1,000

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

L7049/SITE ENTRANCE INBOUND

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1201	A	1:500 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\Central_Data\Projects\41100xx\41107437 - WSP IRE-SHILLELAGH QUARRY-CAD\41 MI\002-Tech Info\01-Current\007-Incoming\FROM DAMIAN\Visibility Splays and Picady Dimension Drawings\

R414

L7049

R8.1628

R8.1908

L7012

R16.0602

R6.8530

R414

Large Tipper

Legend

Large Tipper

Haulage Vehicle

Vehicle Profile

Large Tipper	
Overall Length	10.201m
Overall Width	2.490m
Overall Body Height	3.540m
Min Body Ground Clearance	0.341m
Track Width	2.371m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

0 20 40 60m

1:1,000

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

R414 NORTHBOUND- OUT OF L7049

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1202	A	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\Globals2\AC\Central_Data\Projects\41100xxx\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: Elar Ballykiddy Bison Appendix 12B.dwg

Legend

Large Tipper

Haulage Vehicle

Vehicle Profile

Large Tipper	
Overall Length	10.201m
Overall Width	2.490m
Overall Body Height	2.880m
Min Body Ground Clearance	0.371m
Track Width	2.371m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

0 20 40 60m

1:1,000

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

R414 SOUTHBOUND- OUT OF L7049

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1203	A	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\Globals2\AC\Central_Data\Projects\41100xxx\41107437 - WSP IRE,SHILLELAGH QUARRY-CAD\41 M0\02-Tech Info\01-Current\07-Incoming\FROM_DAMIAN\Visibility Splays and Picadly Dimension Drawings\ | File Name: Elar Ballykisty Bison Appendix 12B.dwg

R414

L7049

R8.1628

Large Tipper

R8.1908

L7012

R16.0602

R6.8530

R414

Legend

Large Tipper

Haulage Vehicle

Vehicle Profile

Large Tipper	
Overall Length	10.201m
Overall Width	2.490m
Overall Body Height	2.940m
Min Body Ground Clearance	0.341m
Track Width	2.371m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

0 20 40 60m

1:1,000

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

L7012 EB - OUT OF L7049

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1204	A	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\Globals2\AC\Central_Data\Projects\41100xxx\41107437 - WSP IRE,SHILLELAGH QUARRY-CAD\41 M0\02-Tech Info\01-Current\07-Incoming\FROM_DAMIAN\Visibility Splays and Picadly Dimension Dawings\ | File Name: Elar Ballykelly Bison Appendix 12B.dwg

Legend

Large Tipper

Haulage Vehicle

Vehicle Profile

Large Tipper	
Overall Length	10.201m
Overall Width	2.490m
Overall Body Height	3.880m
Min Body Ground Clearance	0.391m
Track Width	2.371m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

0 20 40 60m

1:1,000

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

L7049 EB - OUT OF R414 NB

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1205	A	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\Globals2\AC\Central_Data\Projects\41100xxx\41107437 - WSP IRE,SHILLELAGH QUARRY-CAD\41 MI\02-Tech Info\01-Current\07-Incoming\FROM_DAMIAN\Visibility Splays and Picadly Dimension Dawings\ | File Name: Elar Ballykiddy Bison Appendix 12B.dwg

Legend

Large Tipper

Haulage Vehicle

Vehicle Profile

Large Tipper	
Overall Length	10.201m
Overall Width	2.490m
Overall Body Height	3.540m
Min Body Ground Clearance	0.341m
Track Width	2.371m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

0 20 40 60m

1:1,000

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

L7049 EB - OUT OF R414 SB

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1206	A	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\Globals2\AC\Central_Data\Projects\41100xxx\41107437 - WSP IRE,SHILLELAGH QUARRY-CAD\41 M0\02-Tech Info\01-Current\07-Incoming\FROM_DAMIAN\Visibility Splays and Picadly Dimension Dawings\ | File Name: Eiar Ballykisty Bison Appendix 12B.dwg

R414

L7049

R8.1628

R8.1908

L7012

Large Tipper

R16.0602

R6.8530

R414

Legend

Large Tipper

Haulage Vehicle

Vehicle Profile

Large Tipper	
Overall Length	10.201m
Overall Width	2.490m
Overall Body Height	3.540m
Min Body Ground Clearance	0.341m
Track Width	2.371m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

0 20 40 60m

1:1,000

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

L7049 EB - OUT OF L7012

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1207	A	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\Globals2\AC\Central_Data\Projects\41100xxx\41107437 - WSP IRE,SHILLELAGH QUARRY-CAD\41 M0\02-Tech Info\01-Current\07-Incoming\FROM_DAMIAN\Visibility Splays and Picadly Dimension Dawings\ | File Name: Elar Ballykisty Bison Appendix 12B.dwg

Tie into existing hedgeline

Commercial Vehicle taper = 13.6m

6.0m

R13.0m

Commercial Vehicle taper = 13.3m

R13.0m

NORMAL VISIBILITY
68.7m

NORMAL VISIBILITY
74.1m

FORWARD VISIBILITY
50.3m

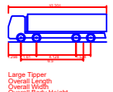
L7049

Legend

Haulage Vehicle

Large Tipper

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 20 40 60m

1:1,000

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

L7049/SITE VISIBILITY SPLAYS

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1208	A	1:500 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\IZA\Central_Data\Projects\41100xx\41107437 - WSP IRE-SHILELAGH QUARRY-CADA11 M9\02-Tech Info\01-Current\07-Incoming\FROM DAMIAN\Visibility Splays and Picady Dimension Drawings\ | File Name: Elar Ballykeldy Bison Appendix 12B.dwg

LEGEND:

Normal Visibility

Forward Visibility

LEGEND:

Geometry Measurements

0 50 100 150m

1:2,500

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

R414/L7049/L7012 VISIBILITY SPLAYS 1

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1209	A	1:1000 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\Globals2\AC\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 Picadry Dimension Drawings\ | File Name: Elar Ballykelly Bison Appendix 12B.dwg

LEGEND:

Normal Visibility

Forward Visibility

LEGEND:

Geometry Measurements

0 50 100 150m

1:2,500

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

R414/L7049/L7012 VISIBILITY SPLAYS 2

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1210	A	1:500 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\IZA\Central_Data\Projects\41100xxx\41107437 - WSP IRE-SHILLEI AGH QUARRY-CAD\41 MW\2-Tech Info\01-Current\07-Incoming\FROM DAMIAN\Visibility Splays and Picadry Dimension Drawings\ | File Name: Elar Ballykeldy Bison Appendix 12B.dwg

Tie into existing hedgeline

Commercial Vehicle taper = 13.6m

4.2141

6.0m

R13.0m

Commercial Vehicle taper = 13.3m

R13.0m

3.9022

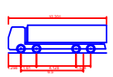
L7049

4.2551

Legend

Large Tipper

Haulage Vehicle



Vehicle Profile

Large Tipper	
Overall Length	10.201m
Overall Width	2.495m
Overall Body Height	2.890m
Min Body Ground Clearance	0.241m
Track Width	2.311m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.350m

0 20 40 60m

1:1,000

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

L7049/SITE ENTRANCE GEOMETRY

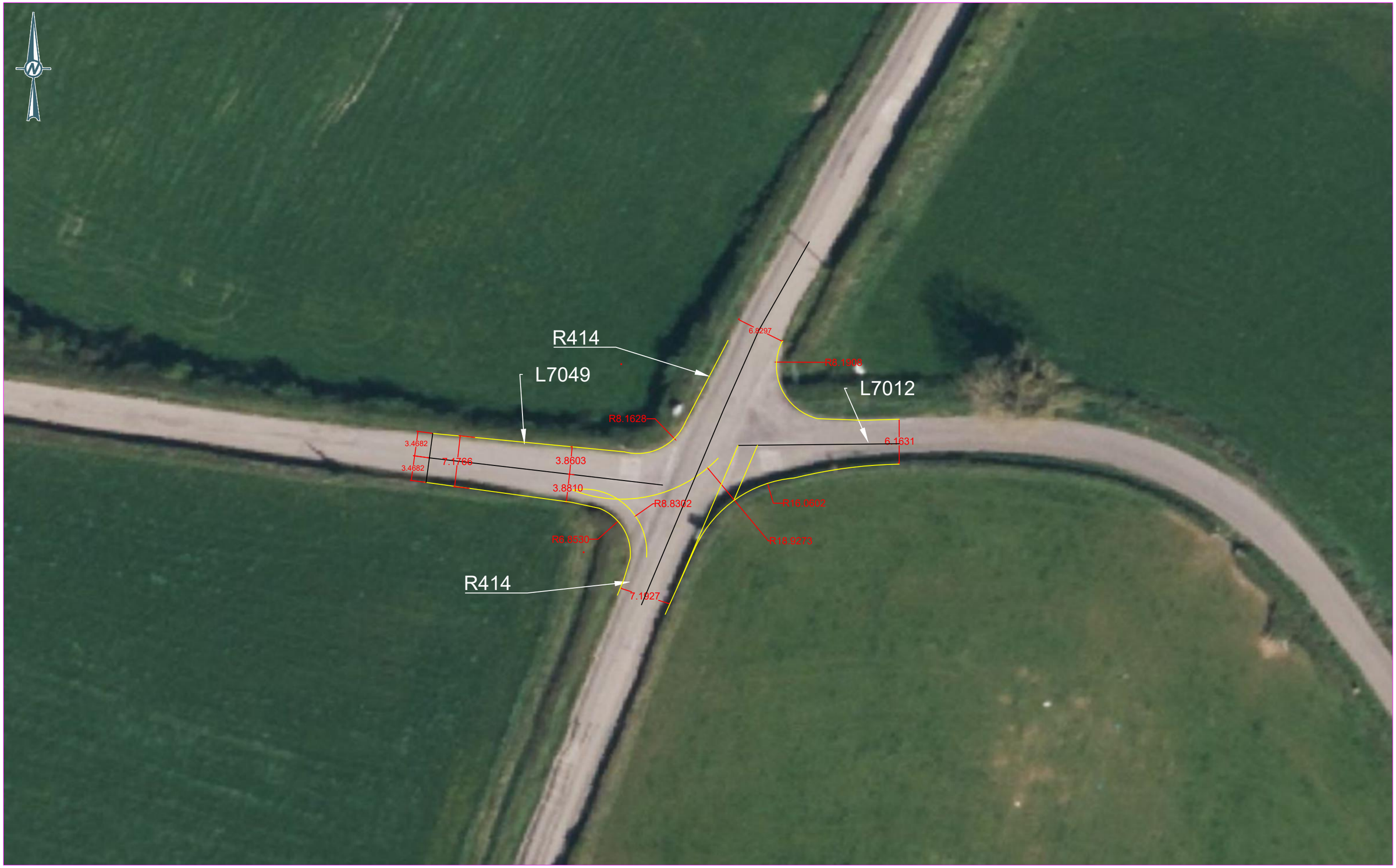
PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1211	A	1:500 A3

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\Central_Data\Projects\41100\xx\41107437 - WSP IRE-SHILLELAGH QUARRY-CAD\41 MI\002-Tech Info\01-Current\007-Incoming\FROM DAMIAN\Visibility Splays and Picady Dimension Drawings\



LEGEND:

Normal Visibility

Forward Visibility

LEGEND:

Geometry Measurements

0 50 100 150m

1:2,500

CLIENT

BISON QUARRIES LTD

CONSULTANT

wsp

YYYY-MM-DD	2025-09-05
PREPARED	MS
DESIGN	MS
REVIEW	KH
APPROVED	CB

PROJECT

BQL SECTION 37L APPLICATION, COOLSICKEN, MONASTEREVIN, Co. KILDARE.

SHEET TITLE

R414/L7049/L7012 PICADY JUNCTION GEOMETRY

PROJECT No.	DRAWING No.	Rev.	SCALE
40000205	1212	A	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: \\corp.pbwan.net\Data\2\AC\central_Data\Projects\41100xxx\41107437 - WSP IRE,SHILLEI AGH QUARRY-CAD\41 M0\02-Tech Info\01-Current\07-Incoming\FROM_DAMIAN\Visibility Splays and Picady Dimension Drawings\ | File Name: Elar Ballykelly Bison Appendix 12B.dwg