East Devon Local Plan 2020 – 2042 Forecast Impact on the Strategic Road Network

Honiton and Axminster

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Devon County Council
County Hall
Topsham Road
Exeter
Devon
EX2 4QD

PREPARED BY
Name: Lewis Kiely
Position: Assistant Transportation Officer
Date: January 2025

AGREED BY
Name: Stuart Jarvis
Position: Principal Transportation Planning Officer
Date: January 2025

ISSUED BY
Name: Stuart Jarvis
Position: Principal Transportation Planning Officer
Date: January 2025

CONTENTS

1. INTRODUCTION

1.1.1. Following confirmation of the final list of site allocations in the emerging East Devon Local Plan 2020 - 2042 by East Devon District Council, a high level Transport Assessment has been carried out to establish the impact proposed development sites have on the Strategic Road Network. This document outlines the methodology used to establish the likely increase in traffic volume accessing the SRN in Honiton and Axminster, and provides an assessment of the anticipated increase in traffic volume through each SRN access junction. Other East Devon proposed development outside of these two towns will have a minimal impact on the SRN so has not been modelled.

1.2. Site allocations

1.2.1. A total 12 site allocations have been provided by EDDC for the Honiton area, consisting of 10 housing allocations and two employment allocations, totalling 838 homes and 14.6ha of employment land. Details of the 12 site allocations in Honiton can be seen below in Table 1.

Table 1: Proposed site allocations in Honiton

Address	HELAA ref	Size (ha)	Type	Dwellings	Employment (ha)
Land north of Northcote Hill	GH/ED/39a	7.25	Housing	100	0
Land south of Northcote Hill	CH/ED/39b	21.69	Housing	100	0
Land on the western side of Hayne Lane	Gitti_03	5.50	Employment	0	5.5
Land to the West of Coombe Garden Centre, Gittisham	Gitti_04	9.10	Employment	0	9.1
Land to the west of Hayne Lane	Gitti_05	28.88	Housing	310	0
Former Millwater School	Honi_06	0.52	Housing	30	0
Land adjacent to St Michaels Church	Honi_07	1.17	Housing	30	0
Land at Ottery Moor Lane	Honi_10	1.25	Housing	21	0
Land on the south-east side of Cuckoo Down Lane and land at Lower Marlpits Farm	Honi_12	4.75	Housing	71	0
Middle Hill, Church Hill	Honi_13	0.83	Housing	10	0
Hurlakes, Northcote Hill	Honi_14	2.60	Housing	30	0
Land at Kings Road, Hale Close	Honi_18	8.51	Housing	136	0
Total				**838**	**14.6**

1.2.2. A total of 15 site allocations have been provided in Axminster, consisting of 9 housing allocations, one employment allocation, and 5 mixed use allocations. Across these 15 sites, a total of 1,081 homes and 13.5ha of employment land. Details of the 15 site allocations in Axminster can be seen below in Table 2.

Table 2: Proposed site allocations in Axminster

Address	HELAA ref	Size (ha)	Type	Dwellings	Employment (ha)
Land off Musbury Road	Axmi_01a	3.38	Employment	0	3.3
Land north of Shoals, Musbury Road	Axmi_02	5.61	Mixed Use	100	0.6
Axminster Carpets Factory site	Axmi_07	4.99	Mixed Use	50	0.5
Land of Wyke Lane	Axmi_08	3.75	Housing	68	0
Great Jackleigh Farm	Axmi_09	15.34	Mixed Use	270	1
Scott Rowe Building, Axminster Hospital	Axmi_10	0.18	Housing	5	0
Land on the southeast side of Axminster	Axmi_11c	1.58	Housing	50	0
Land at Lea Combe, Field End	Axmi_12	0.31	Housing	9	0
Land at Millwey, Chard Road	Axmi_17	0.95	Housing	19	0
Millwey Gargages, St Andrews Drive	Axmi_18	0.25	Housing	6	0
Land east of Axminster	Axmi_22	4.43	Housing	100	0
Websters Garage	Axmi_23	0.28	Housing	10	0
Land west of Prestaller Farm, Beavor Lane	Axmi_24	2.65	Housing	29	0
Prestaller Farm, Beavor Lane	GH/ED/80	30.96	Mixed Use	225	1
Land at Chard Road	GH/ED/83	7.94	Mixed Use	140	0.8
Total				**1081**	**13.5**

1.3. Trip generation

1.3.1. To facilitate the assessment, indicative trip rates for sites have been derived using the TRICS system. A range of trip rates have been derived to account for variation across site sizes. As site allocations in Honiton and Axminster are proposed for both residential and employment uses, residential and employment trip rates have been established. Residential trip rates provide the typical number of trips generated per dwelling, and employment land trip rates the typical number of trips per unit area (for example, per 100 sqm for business park land and warehousing). For residential sites, trip rates covering a small site, of between 1 and 10 dwellings, through to larger sites of around 400 dwellings have been determined. These are shown in Table 3 below. Trip rates are shown for the AM and PM peaks to allow for assessment of the most severe impacts.

Table 3: Indicative residential trip rates

Site Size (dwellings)	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily		
	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way
1-10	0.083	0.306	0.389	0.222	0.056	0.278	1.805	1.890	3.695
5-25	0.203	0.353	0.556	0.285	0.198	0.483	2.445	2.460	4.905
10-50	0.161	0.336	0.497	0.306	0.179	0.485	2.315	2.350	4.665
20-100	0.155	0.341	0.496	0.320	0.160	0.480	2.387	2.398	4.785
50-200	0.139	0.333	0.472	0.305	0.151	0.456	2.226	2.255	4.481
100-400	0.124	0.342	0.466	0.318	0.149	0.467	2.079	2.101	4.180

1.3.2. Similar to residential trip rates, trip rates for employment land have been estimated using TRICS. To account for the variable nature of employment land uses, and the unspecified use, employment trip rates for business park, industrial estate and warehousing uses have been determined for various site size. These are shown in Table 4 to Table 6 below.

Table 4: Indicative trip rates for business park land

Site Size (100 sqm)	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily		
	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way
500-2500	1.455	0.142	0.597	0.190	1.139	1.329	6.234	6.169	12.403
3000-6000	1.499	0.357	1.856	0.442	1.424	1.866	6.879	6.857	13.736
4000-8000	1.563	0.251	1.814	0.254	1.245	1.499	6.236	6.255	12.491
10000-12000	1.330	0.205	1.535	0.089	0.703	0.792	4.127	4.129	8.256
15000-35000	1.696	0.111	1.807	0.092	1.324	1.416	4.966	5.067	10.033
50000-100000	1.897	0.155	2.052	0.103	1.449	1.552	6.494	6.930	13.424
100000-300000	0.837	0.104	0.941	0.034	0.547	0.581	1.902	1.835	3.737

Table 5: Indicative trip rates for industrial estate land

Site Size (ha)	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily		
	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way
0.05 - 0.5	34.711	11.571	46.282	9.9091	22.314	31.405	233.056	242.149	475.205
0.4 - 1	42.959	29.355	72.314	12.888	30.549	43.437	363.244	365.631	728.875
1 - 3	15.529	6.853	22.382	6.989	15.91	22.899	132.634	134.865	267.499
5 - 10	25.727	8.948	34.675	6.935	23.579	30.514	158.969	159.727	318.696
10 - 30	15.969	5.711	21.68	4.586	14.302	18.888	103.537	103.02	206.557
40 - 80	4.145	1.473	5.618	1.582	3.564	5.146	24.438	26.309	50.747

Table 6: Indicative trip rates for warehousing

Site Size (100sqm)	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily		
	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way
500-3000	1.194	0.133	1.327	0	1.194	1.194	2.786	2.786	5.572
3000-8000	0.308	0.099	0.407	0.05	0.263	0.313	1.937	2.025	3.962
10000-40000	0.121	0.121	0.242	0.112	0.152	0.264	1.32	1.429	2.749
40000-100000	0.092	0.043	0.135	0.059	0.058	0.117	0.804	0.837	1.641

1.3.3. Across all residential sites in both Honiton and Axminster, residential trips have been estimated using the appropriate trip rate, depending on the number of dwellings in the site allocation. Where the number of dwellings in the site allocation could be covered

by two of the trip rate, the trip rate with a mid-point closest to the allocation size has been used.

1.3.4. Trips generated by employment allocations, and the employment aspect of mixed use allocations have been treated differently for Honiton and Axminster. As the employment sites in Honiton are intended to form an extension of the existing Heathpark industrial estate, trips generated by these sites have been estimated using industrial estate trip rates only, as shown in Table 5. To account for the unspecified nature of the employment intended for land in the Axminster allocations, an average has been taken across the trip rates for the three employment uses to generate an estimated site trip rate.

1.3.5. It is assumed that only one third of employment land is used for employment purposes, with the remainer providing car parking, access roads and green areas. This assumption is reflected in the trip generation calculations with the employment allocation size reduced to a third of its total area. The number of trips generated by each allocation site for Honiton is shown in Table 7, and for Axminster in Table 8.

Table 7: Trips generated by each site allocation in Honiton

Site	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily		
HELAA Ref	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way
GH/ED/39a	14	33	47	31	15	46	213	218	432
GH/ED/39b	14	33	47	31	15	46	213	218	432
Gitti_03	47	16	64	13	43	56	291	293	584
Gitti_04	78	27	105	21	72	93	482	485	967
Gitti_05	38	106	144	99	46	145	644	651	1296
Honi_06	5	10	15	9	5	15	69	71	140
Honi_07	5	10	15	9	5	15	69	71	140
Honi_10	4	7	12	6	4	10	51	52	103
Honi_12	11	24	35	23	11	34	163	165	328
Honi_13	2	4	6	3	2	5	24	25	49
Honi_14	5	10	15	9	5	15	69	71	140
Honi_18	19	45	64	41	21	62	290	297	587

Table 8: Trips generated by each site allocation in Axminster

Site	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily		
HELAA Ref	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way	Arr.	Dep.	Two-way
Axmi_01a	72	11	83	10	60	70	279	288	567
Axmi_02	29	36	65	33	27	60	283	290	573
Axmi_07	20	20	40	19	19	38	177	179	356
Axmi_08	11	23	34	22	11	33	156	158	314
Axmi_09	51	97	148	89	51	140	637	644	1281
Axmi_10	0	2	2	1	0	1	9	9	18
Axmi_11c	8	17	25	16	8	24	115	116	231
Axmi_12	1	3	4	2	1	3	16	17	33
Axmi_17	4	7	11	5	4	9	46	47	93
Axmi_18	0	2	2	1	0	2	11	11	22
Axmi_22	16	34	50	32	16	48	229	233	462
Axmi_23	2	4	6	3	2	5	24	25	49
Axmi_24	5	10	14	9	5	14	67	68	135
GH/ED/80	46	81	127	75	45	119	543	549	1092
GH/ED/83	37	50	88	46	36	82	383	391	774

1.4. Trip Distribution and Route choice

1.4.1. Trips have been distributed following the usual work place location data taken from the 2011 Census for Honiton and Axminster. The Census data was taken at the MSOA level, with MSOA E02004130: East Devon 002 and MSOA E02004131: East Devon 003 used to represent Honiton, and MSOA E020004133: East Devon 005 representing Axminster. Sites in Honiton were distributed according to which of the two MSOA's they lie within.

1.4.2. To establish the likely routing of traffic arriving and departing from each site, Google Maps was used to establish the most likely route that would be taken between the site and each of the work place locations. The assumption was made that all journeys made between the allocation site and each work place location will follow the recommended route shown on Google Maps, with no alternative routes being used. Using this assumption, the volume of traffic entering and exiting the SRN was established.

2. Impact on the SRN at Honiton

2.1.1. Currently, the dualled A30 forms the northern boundary to the town of Honiton, with two all movement junctions providing access/egress. The two all movement junctions on the A30 at Honiton are the Turks Head junction, which is located to the west of Honiton town centre and serves destinations including Heathpark Industrial Estate, and a junction with the A35 towards the east of the town centre. In addition to the A30, the A35 passes through the north of the town, heading eastward towards Axminster. The location of the two A30 junctions at Honiton, as well as the location of the allocation sites is shown on the map in Figure 1.

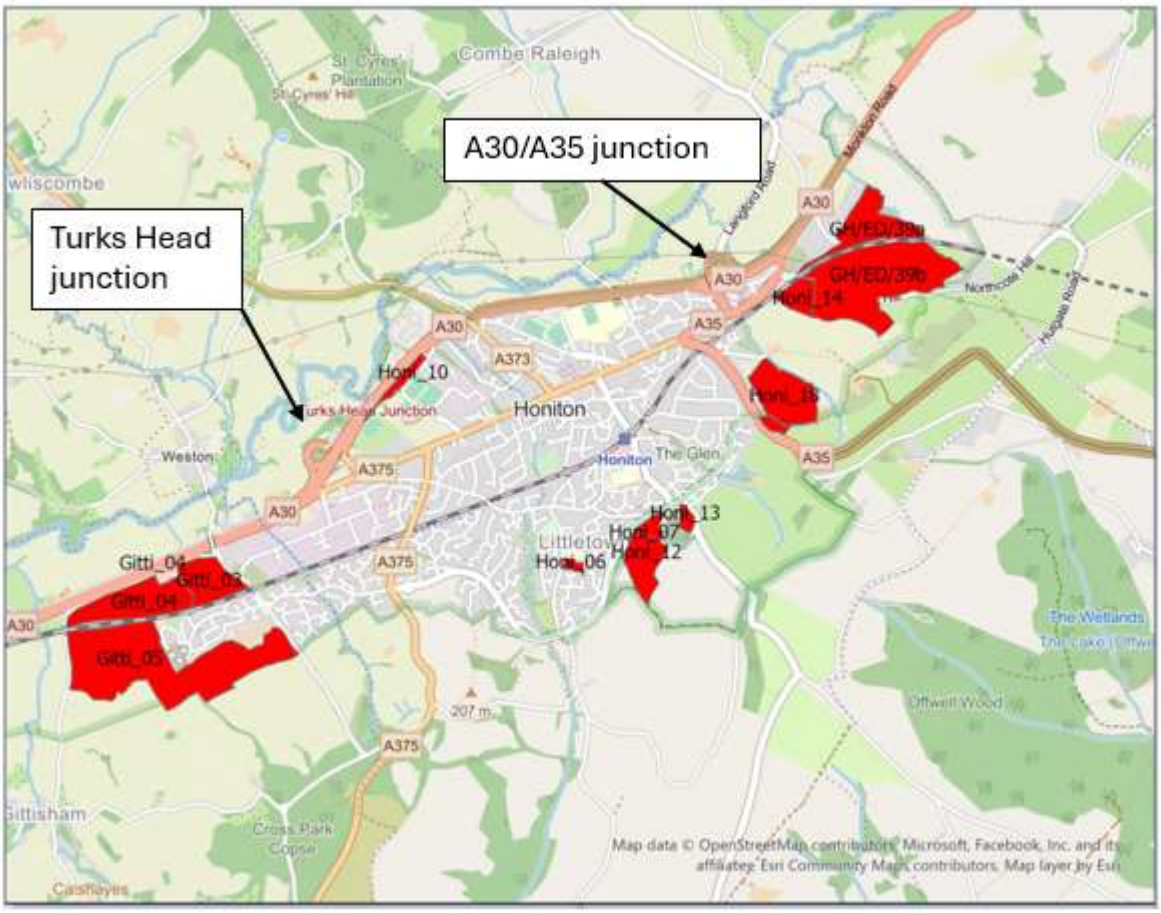


Figure 1: Map showing the location of allocation sites in Honiton, and the location of the two A30 junctions.

2.2. Impact on A30

2.2.1. It is assumed that traffic entering the A30 at Honiton will do so through the nearest junction to the site allocation. The resulting increase in flow through both of the A30 junctions is shown in Table 9 and Table 10.

Table 9: Forecast increase in traffic flow at the Turks Head junction

	Westbound		Eastbound	
	Off-slip	On-slip	Off-slip	On-slip
AM Peak	13	89	84	12
PM Peak	11	84	79	13
12-hour	115	795	788	116

Table 10: Forecast increase in traffic flow at the A30/A35 junction

	Westbound		Eastbound	
	Off-slip	On-slip	Off-slip	On-slip
AM Peak	3	48	20	6
PM Peak	5	22	44	3
12-hour	38	319	312	38

2.2.2. To determine the impact of these increased flows, the flows are added to the existing flows. Existing flows through the two junctions joining the A30 have been taken from Manual Classified Traffic counts performed by DCC in March 2017. The counts cover all of the access/egress movements for the A30 across a 12-hour, 07:00 to 19:00, period. Growth between 2017 and 2024 is accounted for through the application of growth factors obtained from TEMPRO v8. The factors obtained for the geography of interest are 1.0944 for the AM peak, and 1.0929 for the PM peak.

Table 11: Existing number of vehicles entering and exiting the A30 at the Turks Head junction

	Westbound		Eastbound	
	Off-slip	On-slip	Off-slip	On-slip
AM Peak	187	614	549	160
PM Peak	131	567	621	211
12-hour	1557	5308	5262	1907

Table 12: Existing number of vehicles entering and exiting the A30 at the A30/A35 junction

	Westbound		Eastbound	
	Off-slip	On-slip	Off-slip	On-slip
AM Peak	128	681	552	114
PM Peak	151	529	680	129
12-hour	1309	5776	5628	1250

2.2.3. The forecast increase in flows are then added to the existing flows, resulting in the future number of vehicles accessing or egressing the A30 at each junction. These are shown in Table 13 and Table 14.

Table 13: Forecast number of vehicles entering and exiting the A30 at Turks Head when development flows are added to existing flows.

	Westbound		Eastbound	
	Off-slip	On-slip	Off-slip	On-slip
AM Peak	200	703	634	172
PM Peak	142	651	700	224
12-hour	1672	6103	6050	2023

Table 14: Forecast number of vehicles entering and exiting the A30 at the A30/A35 junction when development flows are added to existing flows.

	Westbound		Eastbound	
	Off-slip	On-slip	Off-slip	On-slip
AM Peak	131	729	572	120
PM Peak	156	551	724	132
12-hour	1347	6095	5941	1289

2.2.4. Existing mainline flows on the A30 were estimated using data obtained from National Highway's WebTRIS system. Due to data availability, and for consistency, November 2017 traffic data has been used. As with the MCC data, TEMPRO factors have been applied to account for growth between 2017 and 2024.

2.2.5. The counter providing data for WebTRIS is located to the west of the Turks Head junction. For westbound movements, this is downstream of both junctions, and upstream of both junctions for eastbound movements. Combining the existing mainline flows with the existing junction flows, it is possible to determine the mainline flow upstream, downstream and between the slip roads for both junctions.

Table 15: Existing mainline flows on the A30 at Honiton

Turks Head Junction		AM Peak	PM Peak
Westbound	Upstream	1125	1112
	Through junctions	937	980
	Downstream	1555	1552
Eastbound	Upstream	1318	1680
	Through junction	765	1054
	Downstream	926	1267
A30/A35 Junction		**AM Peak**	**PM Peak**
Westbound	Upstream	569	731
	Through junction	440	578
	Downstream	1125	1112
Eastbound	Upstream	926	1267
	Through junction	370	581
	Downstream	485	711

2.2.6. Assessment of the A30 junctions is then made using the general purpose merge and diverge diagrams available in National Highways Design Manual for Roads and Bridges (DMRB) CD 122 – Geometric design of grade separated junctions. The merge and diverge diagrams use peak hour slip road and mainline flows to provide an indication of the suitable junction layout.

2.2.7. For both junctions, the highest merging flows are seen in the AM peak, and the highest diverging flows are in the PM peak. Figure 2 shows the all-purpose merge diagram, with the AM peak data points for both junctions.

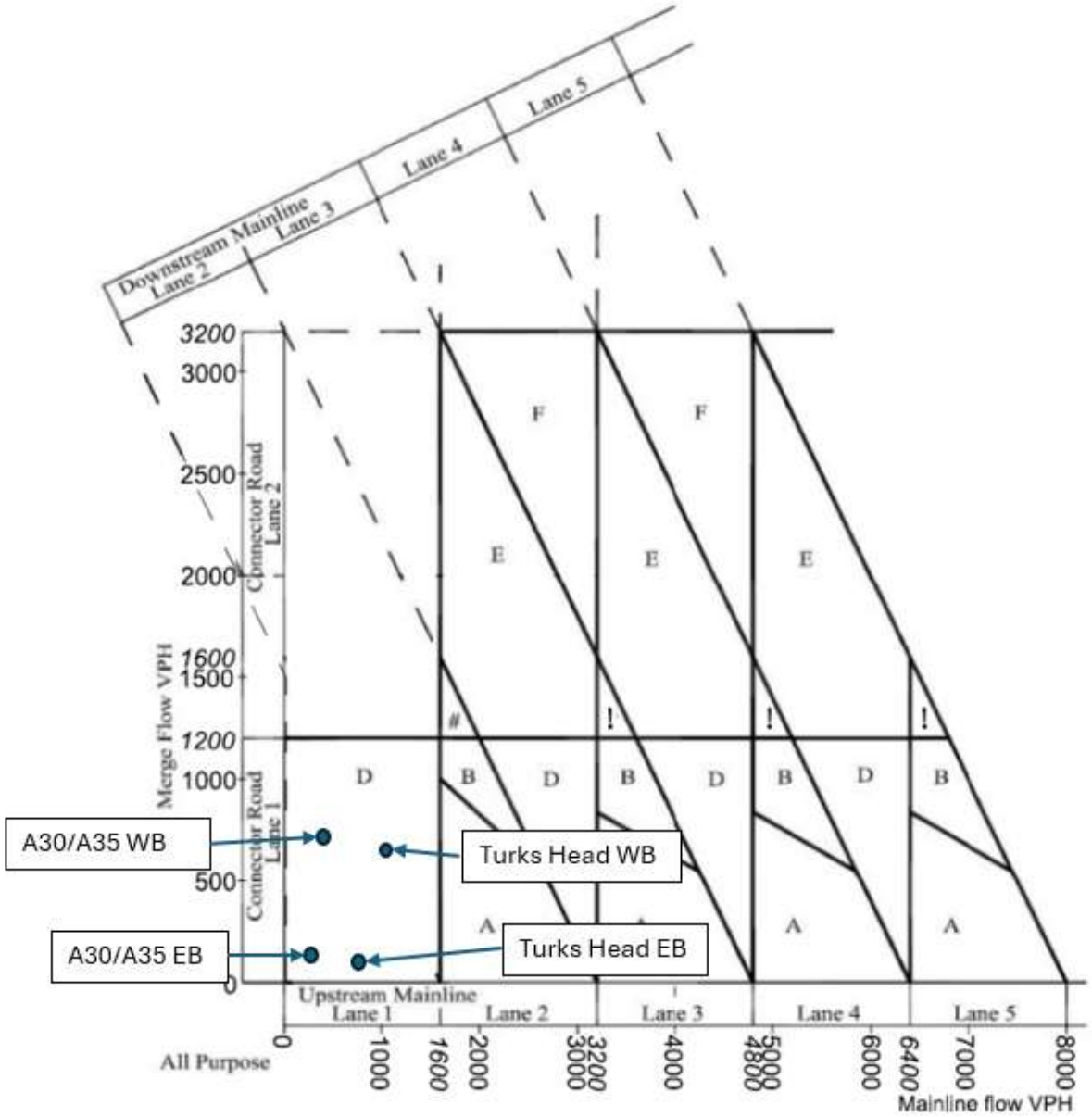


Figure 2: All-purpose merge diagram taken from DMRB with flow data for the AM merge shown for both A30 junctions at Honiton.

2.2.8. It is seen on Figure 2 that a junction with a 'D' style layout would be the recommended for expected flows. A layout D junction is a lane gain junction, which in the case of the flows in Honiton would see a single mainline lane gain a second lane at the merge. However, through the merges at both of these junctions, the A30 has 2-lanes, with an A style merge. These existing merges provide more capacity than is likely to be required by the forecast flows, and so it can be concluded that the function of the A30 at Honiton will be largely unaffected by the Local Plan development.

2.2.9. Figure 3 shows the all-purpose diverge diagram, with the PM peak data points for both junctions.

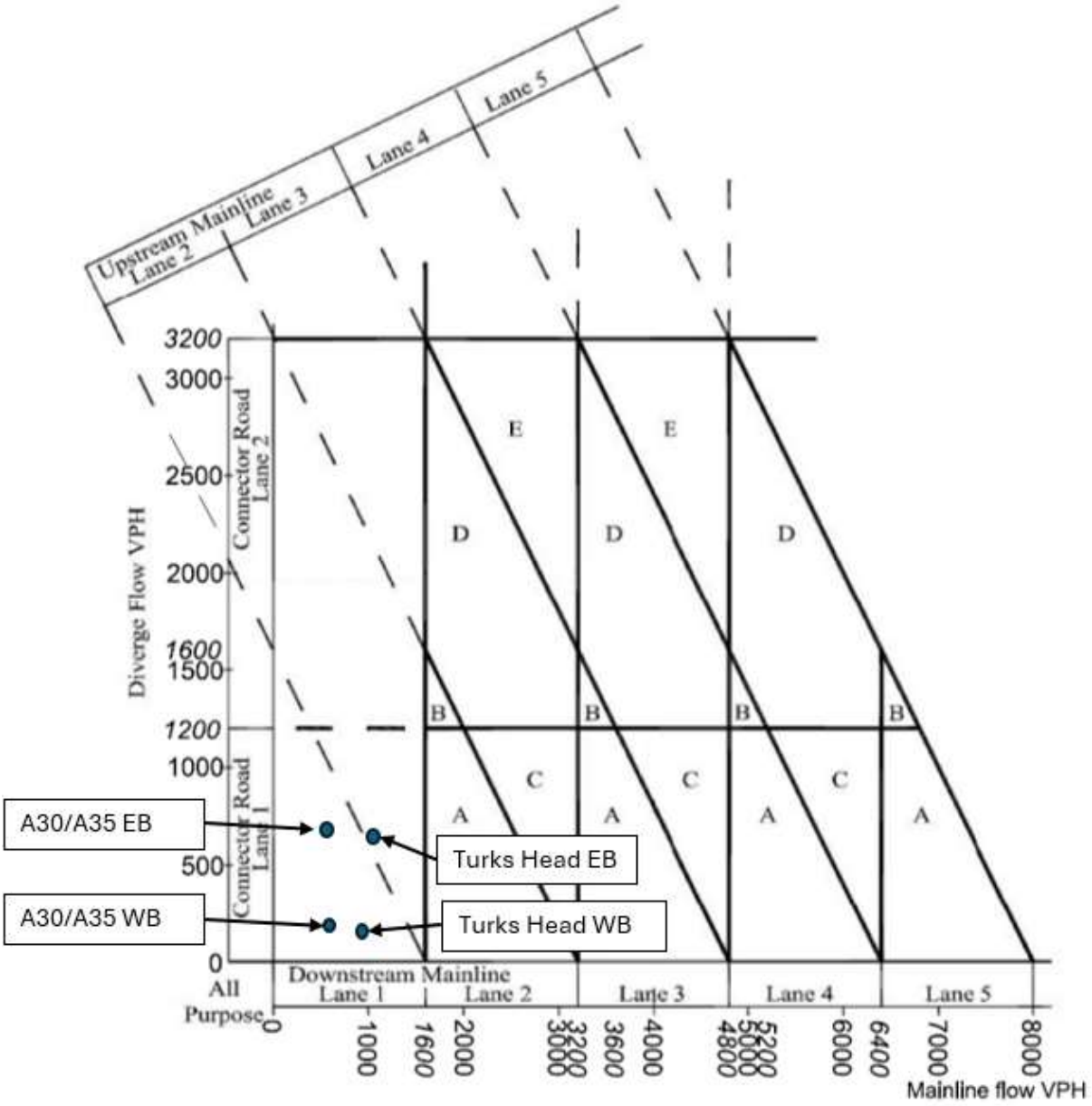


Figure 3: All-purpose diverge diagram taken from DMRB with flow data for the PM diverge shown for both A30 junctions at Honiton.

2.2.10. Similar to the merges, it is seen in Figure 3 that the mainline flows are lower than the thresholds for an 'A' style diverge layout with two downstream mainline lanes. The four diverge movements on the A30 at Honiton are 'A' style layouts which provide more than enough capacity to accommodate existing and local plan forecast flows.

2.3. Impact on the A35

2.3.1. In addition to the A30, consideration is also give to vehicles entering or exiting the A35 at Honiton. It is assumed that all traffic joining and leaving the A35 at Honiton will do so at the roundabout between the A35 and High Street, to the east of the town centre. This assumption is likely to provide an overestimate of the volume of traffic joining the A35 through this roundabout due to the availability of alternative routes to

the south of the town centre. The forecast increase in traffic joining or leaving the A35 in Honiton is shown below in Table 16.

Table 16: Forecast increase in vehicles joining or leaving the A35 in Honiton

	AM Peak	PM Peak	12-hour
Arriving in Honiton	27	17	186
Departing Honiton	19	23	192
Two-way	46	41	377

2.3.2. It is seen in Table 16 that in the peak hours, less than one extra vehicle per minute is expected to enter or leave the A36 in Honiton. An increase of this magnitude is very minor and would not be expected to create any noticeable capacity issues.

3. Impact on the SRN at Axminster

3.1.1. The A35 passes to the south of Axminster, with three junctions for access/egress. The A35 in this region is predominantly a single carriageway road, and the three junctions serving Axminster are all priority junctions. The three junctions providing access to Axminster are the Yarty Bridge junction, to the south-west of Axminster, the Abbey Gate junction to the south, and Symonds Lane junction to the south-east. The location of the three junctions, as well as the location of the Axminster allocation sites can be seen below in the map in Figure 4.

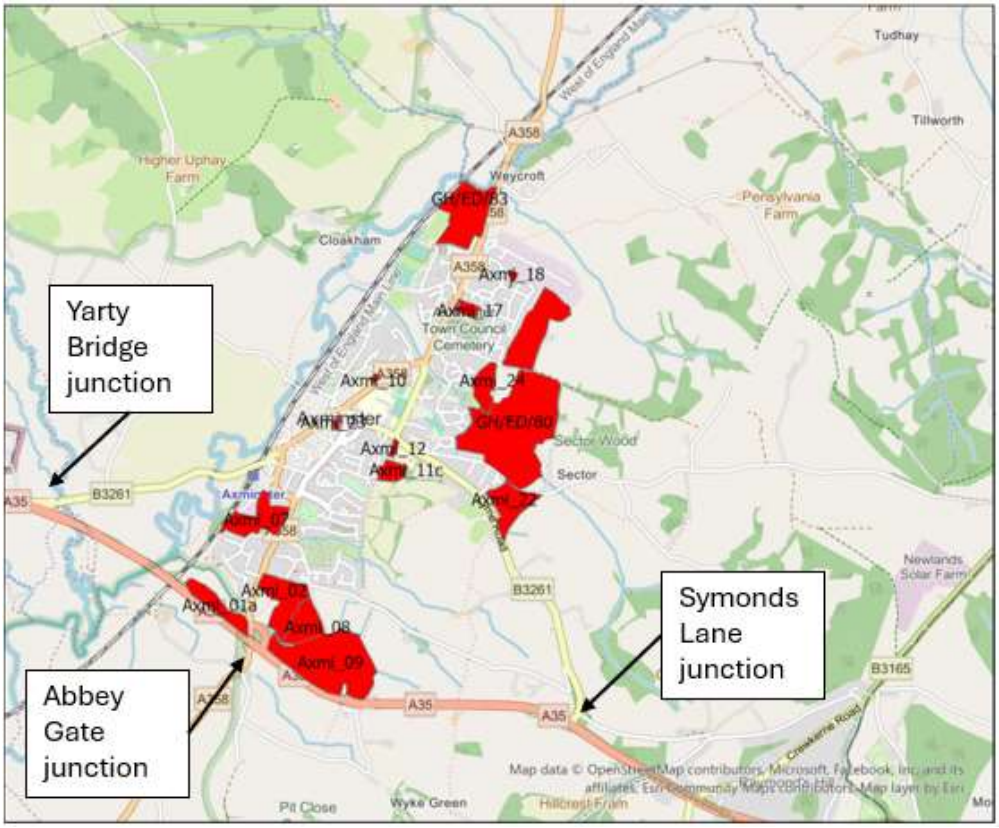


Figure 4: Map showing the location of the Axminster allocation sites and the three Axminster junctions on the A35.

3.1.2. It is assumed in the trip assignment that trips entering the A35 at Axminster will do so through the nearest junction to the allocation site, without causing an unnecessary detour in the opposite direction of travel. The resulting increases in traffic flow through each of the A35 junctions are shown below in Tables 17, 18 and 19.

Table 17: Forecast increase in traffic flow at the Yarty Bridge junction.

Movement at junction	AM	PM	12-hour
From Axminster towards Exeter	40	25	290
From Exeter to Axminster	25	36	286
From Axminster towards Dorchester	0	0	0
From Dorchester to Axminster	0	0	0
Total (all turning movements)	65	61	576

Table 18: Forecast increase in traffic flows at the Abbey Gate junction

Movement at junction	AM	PM	12-hour
From Axminster towards Exeter	34	31	283
From Exeter to Axminster	33	32	278
From Axminster towards Dorchester	21	19	177
From Dorchester to Axminster	21	20	174
Total (all turning movements)	109	102	912

Table 19: Forecast increase in traffic flows at the Symonds Lane junction.

Movement at junction	AM	PM	12-hour
From Axminster towards Exeter	7	3	48
From Exeter to Axminster	3	7	47
From Axminster towards Dorchester	24	13	166
From Dorchester to Axminster	13	22	164
Total (all turning movements)	47	44	425

3.1.3. It is seen in Table 17 that the Yarty Bridge junction is expected to see a total increase of around 65 extra vehicles per hour in the AM and 61 extra in the PM. An increase of this magnitude would result in an average of one extra car every minute travelling through the junction.

3.1.4. Tables 17 to 19 show that the highest increase in total flows are expected through the Abbey Gate junction, with 109 extra vehicles expected to use this junction in the AM peak and 102 in the PM peak. These increases would result in an average of one extra vehicle every 33s using the junction.

3.1.5. The lowest increase is forecast through the Symonds Lane junction, with an extra 47 and 44 extra vehicle expected to use this in the AM and PM peak, respectively. These increases would result in an average of one extra vehicle using the junction every 75 seconds.

3.2. Assessment of junctions

3.2.1. To assess the forecast performance of each of the three priority junctions, the Picady module in the Junctions 10 software package has been used. To facilitate the Picady assessments, existing flows through each junction are required.

3.2.2. Existing flows and turning movements on the A35 at Axminster have been estimated using a combination of manual classified counts (MCC) undertaken by DCC at each of the three junctions and an automatic traffic counter (ATC) site located at the Symonds Lane junction. The MCC data was collected in March 2013 and provides 12-hour, 07:00 to 19:00 turning movement at each of the junctions only, with no mainline flow. The ATC data provides directional flows on the A35 at the Symonds Lane junction, as well as directional flow on the B3261.

3.2.3. As the MCC data is relatively old, ATC data has been used to establish the growth in flow between 2013 and 2024. A comparison between the average annual daily flow

(AADT) and the 12-hour 07:00-19:00 average weekday flows for 2013 and 2024 is shown in Table 20.

Table 20: Comparison of AADT and average 12-hour weekday flows at the Symonds Lane junction on the A35 for 2013 and 2024

	2013		2024		Difference		% Difference	
	AADT	**12-hour**	**AADT**	**12-hour**	**AADT**	**12-hour**	**AADT**	**12-hour**
A35 EB	5968	5312	6760	6058	792	746	+13.3%	+14.0%
A35 WB	5827	5143	6469	5795	669	652	+11.5%	+12.7%
A35 2-way	**11795**	**10455**	**13256**	**2542**	**1461**	**1398**	**+12.4%**	**+13.4%**
B3261 to Axminster	2887	2561	2822	2542	-65	-19	-2.3%	+1.0%
B3261 from Axminster	2734	2431	2701	2455	-33	24	-1.2%	-0.7%
B3261 2-way	**5621**	**4992**	**5523**	**4997**	**-98**	**5**	**-1.7%**	**+0.1%**

3.2.4. It is seen in Table 20 that the AADT on the A35 at Axminster has grown by approximately 12.4% between 2013 and 2024, but flows on the B3261 have remained stable. Therefore, turning flows from the 2013 MCC's for the three junctions are taken to represent the existing conditions. Existing mainline flows on the A35 have been taken from the 2024 average flow per direction, as recorded by the ATC.

3.3. Yarty Bridge Junction

3.3.1. Development flows have been added to the existing flows for the Yarty Bridge junction, for both the AM and PM peaks, as shown in Table 21 and Table 22, respectively.

Table 21: Existing flows plus local plan development flows through the Yarty Bridge junction in the AM peak.

	From/To	A35 West	B3261	A35 East
AM	**A35 West**	0	2	225
	B3261	49	0	210
	A35 East	411	1	0

Table 22: Existing flows plus local plan development flows through the Yarty Bridge junction in the PM peak.

	From/To	A35 West	B3261	A35 East
PM	**A35 West**	0	3	284
	B3261	36	0	199
	A35 East	438	0	0

3.3.2. The Yarty Bridge junction consists of two parts; a single lane diverge enabling traffic approaching from the west to turn off the A35 towards Axminster, followed by an all movement priority arrangement approximately 180m further east. It is expected that the single lane diverge will have a capacity far greater than the volume of traffic using it, therefore, only the all movement priority junction has been assessed. Due to the single lane diverge, very few vehicles were observed to be turning left when approaching from the A35 at the priority junction. It is assumed that all development traffic making this movement would use the single lane diverge 180m prior to the priority junction.

3.3.3. Geometric measurements required to undertake the Picady assessment were measures using measurement tool available in Google maps. The measurements input can be seen in the Yarty Bridge Picady report in Appendix 1.

3.3.4. A summary of the AM and PM peak results are shown below in Table 23, with the full report contained within Appendix 1.

Table 23: Summary of Yarty Bridge junction performance predicted by the Picady assessment.

	AM Peak				PM Peak			
Stream	**Queue (pcu)[1]**	**Delay (s)**	**RFC**	**LOS[2]**	**Queue (pcu)**	**Delay (s)**	**RFC**	**LOS**
B3261 – A35 East	0.6	9.16	0.35	A	0.5	2.4	0.34	A
B3261 – A35 West	0.2	10.87	0.13	B	0.1	0.5	0.10	A
A35 East – B3261	0.0	5.07	0.00	A	0.0	1	0.00	A

3.3.5. It is seen in Table 23 that the Yarty Bridge junction will operate well within its capacity, with a highest Ratio of Flow to Capacity (RFC) of 0.35, where an RFC of 0.85 is widely accepted to be the point at which a junctions performance degrades. Therefore, it can be concluded that the forecast local plan development traffic will have no adverse impact on the Yarty Bridge junction.

3.4. Abbey Gate Junction

3.4.1. Forecast local plan development flows have been added to existing flows through the Abbey Gate junction for both the AM and PM peaks, as can be seen in Table 24 and Table 25, respectively.

Table 24: Existing flows plus local plan development flows through the Abbey Gate junction in the AM peak

	From/To	**A35 West**	**B3261**	**A35 East**
AM	**A35 West**	0	57	378
	B3261	78	0	124
	A35 East	333	104	0

[1] pcu = passenger car unit
[2] LOS = Level of Service

Table 25: Existing flows plus local plan development flows through the Abbey Gate junction in the PM peak

	From/To	A35 West	B3261	A35 East
PM	A35 West	0	61	423
	B3261	61	0	126
	A35 East	378	121	0

3.4.2. Unlike the Yarty Bridge junction, there is no separate single lane diverge for left turner approaching the junction on the A35 from the west, instead the Abbey Gate junction is a simple T-junction, with a ghost island to provide vehicles turning right off of the A35 a safe place to wait.

3.4.3. As with the Yarty Bridge Picady assessment, the required geometric measurements were taken using the measurement tool in Google Map, with the full set of measurement available in Appendix 2.

3.4.4. A summary of the AM and PM peak results are shown below in Table 26, with the full report contained within Appendix 2.

Table 26: Summary of Abbey Gate junction performance predicted by the Picady assessment.

	AM Peak				PM Peak			
Stream	Queue (pcu)	Delay (s)	RFC	LOS	Queue (pcu)	Delay (s)	RFC	LOS
A358 – A35 East	0.3	8.62	0.24	A	0.3	8.54	0.24	A
A358 – A35 West	0.3	12.85	0.23	B	0.3	13.71	0.20	B
A35 East – A358	0.2	6.97	0.18	A	0.3	7.39	0.21	A

3.4.5. It is seen in Table 26 that the Abbey Gate junction will operate well within its capacity, with a highest RFC of 0.24, well below the critical RFC of 0.85. Therefore, it can be concluded that the forecast local plan development traffic will have no adverse impact on the Abbey Gate junctions.

3.5. Symonds Lane junction

3.5.1. Forecast local plan development flows have been added to the existing flows through Symonds Lane junction for both the AM and PM peaks, as can be seen in Table 27 and Table 28, respectively.

Table 27: Existing flows plus local plan development flows through the Symonds Lane junction in the AM peak.

	From/To	A35 West	B3261	A35 East
AM	A35 West	0	20	482
	B3261	14	0	228
	A35 East	423	253	0

Table 28: Existing flows plus local plan development flows through the Symonds Lane junction in the PM peak.

	From/To	A35 West	B3261	A35 East
PM	A35 West	0	32	517
	B3261	6	0	253
	A35 East	492	230	0

3.5.2. As with the Abbey Gate junction, the Symonds Lane junction consists of T-junction, with a ghost island provided to provide space for vehicles turning right off of the A35 to wait. The eastbound carriageway of the A35 through Symonds Lane junction has 2 lanes, with a single lane in the westbound direction.

3.5.3. Consistent with the other two junctions, the geometric measurements needed for the Picady assessment were taken using the measurement tool in Google maps, with the full set of input parameters provided in the report in Appendix 3.

3.5.4. A summary of the AM and PM peak results are shown below in Table 29, with the full report in Appendix 3.

Table 29: Summary of Symonds Lane junction performance predicted by the Picady assessment.

	AM Peak				PM Peak			
Stream	Queue (pcu)	Delay (s)	RFC	LOS	Queue (pcu)	Delay (s)	RFC	LOS
B3261 – A35 East	0.7	10.68	0.42	B	0.9	11.59	0.47	B
B3261 – A35 West	0.1	16.85	0.07	C	0.0	17.34	0.03	C
A35 East – B3261	1.0	12.98	0.50	B	0.9	12.77	0.46	B

3.5.5. It is seen in Table 29 that the Symonds Lane junction will operate well within its capacity when local plan development flows are included, with a highest RFC of 0.50, well below the critical RFC of 0.85. Therefore, it can be concluded that the forecast local plan development traffic will have no adverse impact on the Symonds Lane junction.

4. Conclusions

4.1.1. Following receipt of the final site allocations in the emerging East Devon Local Plan for sites in Honiton and Axminster, a high level transport assessment has been carried out to determine the likely impact this development will have on the Strategic Road Network, at the request of National Highways. It has been shown that the forecast increase in vehicles entering and exiting the A30 at Honiton will easily be accommodated by the A30, with no capacity issue identified.

4.1.2. A minor increase in traffic entering and exiting the A35 at Honiton is forecast, however these increases are extremely small, and are unlikely to have a noticeable impact.

4.1.3. In Axminster, the increase in the number of vehicles using the A35, and the three priority junctions, was found to be minor, with increases which should easily be accommodated by the existing infrastructure.

4.1.4. In summary, the proposed development at Honiton and Axminster is unlikely to have a significant impact on the SRN.

Appendix 1 – Junctions 10 PICADY report for Yarty Bridge Junction

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: Yarty Bridge Priority Junction.j10
Path: C:\Users\Lewis.Kiely\Devon County Council\Transport Planning - Documents\Region Greater Exeter\East Devon\Local Plan\Site Review\Forecast SRN Flow
Report generation date: 24/01/2025 11:46:51

Summary of junction performance

	AM									PM								
	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025																	
Stream B-C	D1	0.6	2.7	9.16	0.35	A	2.74	A	95 % [Stream B-C]	D2	0.5	2.4	8.77	0.34	A	2.19	A	98 % [Stream B-C]
Stream B-A		0.2	0.5	10.87	0.13	B					0.1	0.5	9.98	0.10	A			
Stream C-AB		0.0	0.5	5.07	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

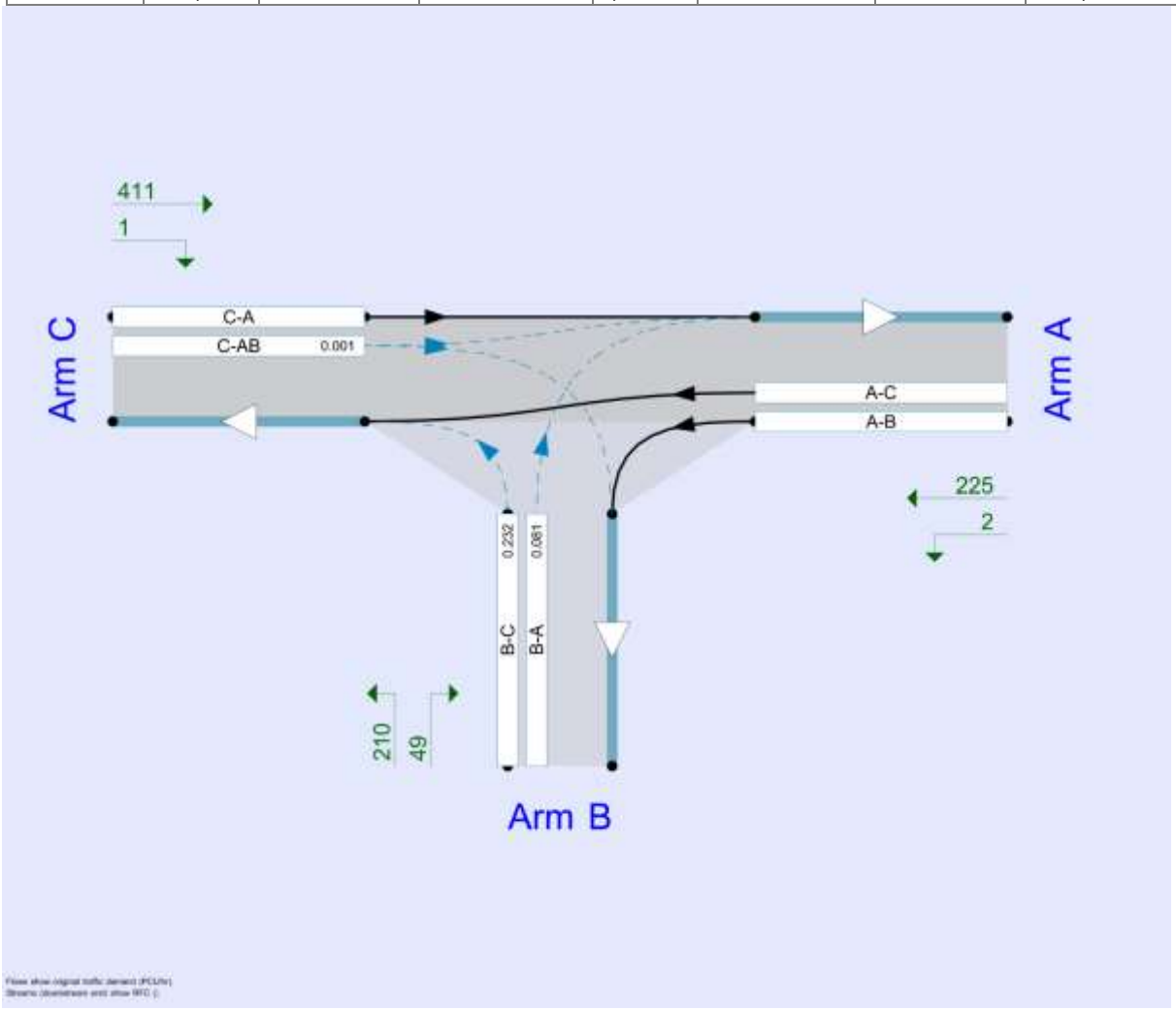
File Description

Title	
Location	
Site number	
Date	24/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DS2\Lewis.Kiely
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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓
D2	2025	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Yarty Bridge	T-Junction	Two-way	Two-way	Two-way		2.74	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	95	Stream B-C	2.74	A

Arms

Arms

Arm	Name	Description	Arm type
A	A35 West		Major
B	B3261		Minor
C	A35 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.50	✓	6.00	✓	3.00	250.0	✓	11.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	8.00	5.70	5.00	4.50	✓	3.00	50	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	531	0.080	0.202	0.127	0.288
B-C	740	0.106	0.268	-	-
C-B	781	0.283	0.283	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically

D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	227	100.000
B		ONE HOUR	✓	259	100.000
C		ONE HOUR	✓	412	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	**B**	**C**
From	**A**	0	2	225
	B	49	0	210
	C	411	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	**B**	**C**
From	**A**	0	0	8
	B	11	0	7
	C	8	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-C	0.35	9.16	0.6	2.7	A	193	289
B-A	0.13	10.87	0.2	0.5	B	45	67
C-AB	0.00	5.07	0.0	0.5	A	0.92	1
C-A						377	566
A-B						2	3
A-C						206	310

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	158	40	681	0.232	157	0.0	0.3	7.334	A

B-A	37	9	457	0.081	37	0.0	0.1	9.486	A
C-AB	0.75	0.19	733	0.001	0.75	0.0	0.0	4.916	A
C-A	309	77			309				
A-B	2	0.38			2				
A-C	169	42			169				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	189	47	669	0.282	188	0.3	0.4	8.014	A
B-A	44	11	443	0.100	44	0.1	0.1	10.021	B
C-AB	0.90	0.22	724	0.001	0.90	0.0	0.0	4.981	A
C-A	369	92			369				
A-B	2	0.45			2				
A-C	202	51			202				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	231	58	652	0.355	231	0.4	0.6	9.126	A
B-A	54	13	421	0.128	54	0.1	0.2	10.863	B
C-AB	1	0.28	711	0.002	1	0.0	0.0	5.073	A
C-A	453	113			453				
A-B	2	0.55			2				
A-C	248	62			248				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	231	58	652	0.355	231	0.6	0.6	9.156	A
B-A	54	13	421	0.128	54	0.2	0.2	10.872	B
C-AB	1	0.28	711	0.002	1	0.0	0.0	5.073	A
C-A	453	113			453				
A-B	2	0.55			2				
A-C	248	62			248				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	189	47	669	0.282	189	0.6	0.4	8.051	A
B-A	44	11	443	0.100	44	0.2	0.1	10.034	B
C-AB	0.90	0.22	724	0.001	0.90	0.0	0.0	4.981	A
C-A	369	92			369				
A-B	2	0.45			2				
A-C	202	51			202				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	158	40	680	0.232	158	0.4	0.3	7.384	A
B-A	37	9	457	0.081	37	0.1	0.1	9.509	A
C-AB	0.75	0.19	733	0.001	0.75	0.0	0.0	4.918	A
C-A	309	77			309				
A-B	2	0.38			2				
A-C	169	42			169				

Queue Variation Results for each time segment

08:00 - 08:15

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-C	0.32	0.00	0.00	0.32	0.32			N/A	N/A
B-A	0.10	0.00	0.00	0.10	0.10			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 (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-C	0.42	0.00	0.00	0.42	0.42			N/A	N/A
B-A	0.12	0.00	0.00	0.12	0.12			N/A	N/A
C-AB	0.00	0.00	0.25	0.45	0.48			N/A	N/A

08:30 - 08:45

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-C	0.58	0.03	0.27	0.58	0.58			N/A	N/A
B-A	0.16	0.03	0.29	0.52	0.55			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 (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-C	0.58	0.03	0.31	1.38	2.72			N/A	N/A
B-A	0.16	0.03	0.28	0.50	0.53			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

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-C	0.43	0.00	0.00	0.43	0.43			N/A	N/A
B-A	0.12	0.00	0.00	0.12	0.12			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

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-C	0.33	0.00	0.00	0.33	0.33			N/A	N/A
B-A	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS

1	Yarty Bridge	T-Junction	Two-way	Two-way	Two-way		2.19	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	98	Stream B-C	2.19	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	287	100.000
B		ONE HOUR	✓	235	100.000
C		ONE HOUR	✓	438	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	3	284
	B	36	0	199
	C	438	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	8
	B	0	0	4
	C	8	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-C	0.34	8.77	0.5	2.4	A	183	274
B-A	0.10	9.98	0.1	0.5	A	33	50
C-AB	0.00	0.00	0.0	~1	A	0	0
C-A						402	603

A-B						3	4
A-C						261	391

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	150	37	679	0.221	149	0.0	0.3	7.047	A
B-A	27	7	441	0.062	27	0.0	0.1	8.693	A
C-AB	0	0	1498	0.000	0	0.0	0.0	0.000	A
C-A	330	82			330				
A-B	2	0.56			2				
A-C	214	53			214				

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-C	179	45	665	0.269	179	0.3	0.4	7.691	A
B-A	32	8	424	0.076	32	0.1	0.1	9.187	A
C-AB	0	0	1473	0.000	0	0.0	0.0	0.000	A
C-A	394	98			394				
A-B	3	0.67			3				
A-C	255	64			255				

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-C	219	55	646	0.339	219	0.4	0.5	8.747	A
B-A	40	10	401	0.099	40	0.1	0.1	9.969	A
C-AB	0	0	1439	0.000	0	0.0	0.0	0.000	A
C-A	482	121			482				
A-B	3	0.83			3				
A-C	313	78			313				

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-C	219	55	646	0.339	219	0.5	0.5	8.772	A
B-A	40	10	400	0.099	40	0.1	0.1	9.976	A
C-AB	0	0	1439	0.000	0	0.0	0.0	0.000	A
C-A	482	121			482				
A-B	3	0.83			3				
A-C	313	78			313				

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-C	179	45	665	0.269	179	0.5	0.4	7.721	A
B-A	32	8	424	0.076	32	0.1	0.1	9.196	A
C-AB	0	0	1473	0.000	0	0.0	0.0	0.000	A
C-A	394	98			394				

A-B	3	0.67			3				
A-C	255	64			255				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	150	37	679	0.221	150	0.4	0.3	7.092	A
B-A	27	7	441	0.061	27	0.1	0.1	8.705	A
C-AB	0	0	1498	0.000	0	0.0	0.0	0.000	A
C-A	330	82			330				
A-B	2	0.56			2				
A-C	214	53			214				

Queue Variation Results for each time segment

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-C	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B-A	0.06	0.00	0.00	0.06	0.06			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 (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-C	0.38	0.00	0.00	0.38	0.38			N/A	N/A
B-A	0.08	0.03	0.26	0.47	0.50			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 (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-C	0.53	0.03	0.27	0.53	0.53			N/A	N/A
B-A	0.11	0.03	0.26	0.47	0.49			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 (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-C	0.53	0.03	0.31	1.38	2.44			N/A	N/A
B-A	0.11	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	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-C	0.39	0.00	0.00	0.39	0.39			N/A	N/A
B-A	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

18:15 - 18:30

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-C	0.30	0.00	0.00	0.30	0.30			N/A	N/A
B-A	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Appendix 2 – Junctions 10 PICADY report for Abbey Gate Junction

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: Abbey Gate Priority Junction.j10
Path: C:\Users\Lewis.Kiely\Devon County Council\Transport Planning - Documents\Region Greater Exeter\East Devon\Local Plan\Site Review\Forecast SRN Flow
Report generation date: 24/01/2025 12:26:36

Summary of junction performance

	AM									PM								
	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025																	
Stream B-C	D1	0.3	1.5	8.62	0.24	A	2.60	A	50 % [Stream B-A]	D2	0.3	1.5	8.54	0.24	A	2.40	A	45 % [Stream B-A]
Stream B-A		0.3	1.4	12.85	0.23	B					0.3	1.2	13.71	0.20	B			
Stream C-AB		0.2	0.8	6.97	0.18	A					0.3	1.3	7.39	0.21	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

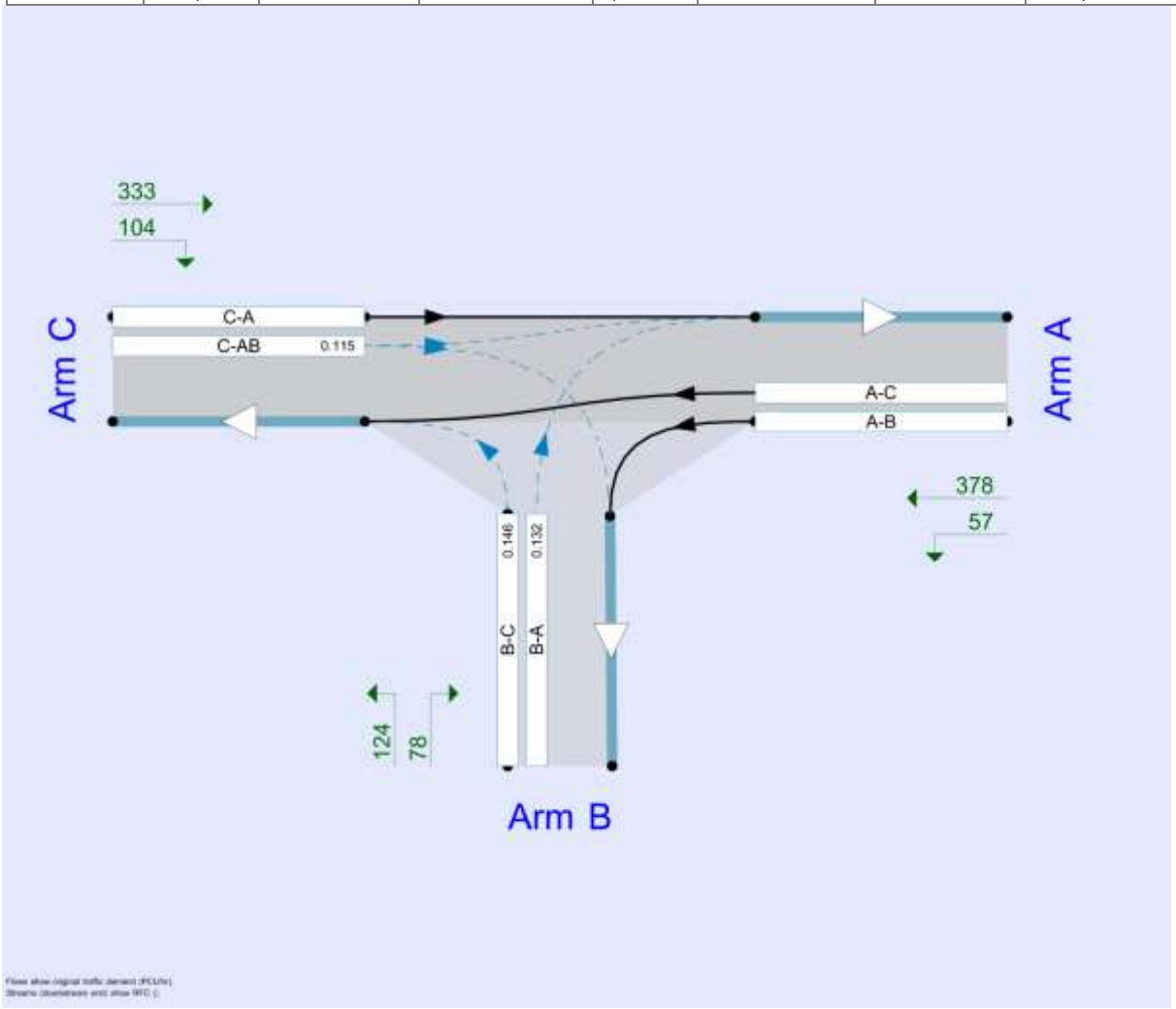
File Description

Title	
Location	
Site number	
Date	23/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DS2\Lewis.Kiely
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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	00:00	01:30	15	✓
D2	2025	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Abbey Gate	T-Junction	Two-way	Two-way	Two-way		2.60	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	50	Stream B-A	2.60	A

Arms

Arms

Arm	Name	Description	Arm type
A	A35 West		Major
B	A358		Minor
C	A35 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00		✓	3.00	250.0	✓	16.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	7.00	4.20	3.60	3.40	✓	1.00	120	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	605	0.110	0.278	0.175	0.398
B-C	749	0.115	0.290	-	-
C-B	781	0.303	0.303	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	435	100.000
B		ONE HOUR	✓	202	100.000
C		ONE HOUR	✓	437	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	57	378
	B	78	0	124
	C	333	104	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	21	8
	B	0	0	5
	C	8	1	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-C	0.24	8.62	0.3	1.5	A	114	171
B-A	0.23	12.85	0.3	1.4	B	72	107
C-AB	0.18	6.97	0.2	0.8	A	95	143
C-A						306	458
A-B						52	78
A-C						347	520

Main Results for each time segment

00:00 - 00:15

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-C	93	23	637	0.146	93	0.0	0.2	6.931	A
B-A	59	15	444	0.132	58	0.0	0.2	9.313	A

C-AB	78	20	682	0.115	78	0.0	0.1	6.010	A
C-A	251	63			251				
A-B	43	11			43				
A-C	285	71			285				

00:15 - 00:30

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-C	111	28	613	0.182	111	0.2	0.2	7.535	A
B-A	70	18	412	0.170	70	0.2	0.2	10.524	B
C-AB	93	23	663	0.141	93	0.1	0.2	6.381	A
C-A	299	75			299				
A-B	51	13			51				
A-C	340	85			340				

00:30 - 00:45

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-C	137	34	575	0.237	136	0.2	0.3	8.601	A
B-A	86	21	366	0.235	85	0.2	0.3	12.810	B
C-AB	115	29	636	0.180	114	0.2	0.2	6.961	A
C-A	367	92			367				
A-B	63	16			63				
A-C	416	104			416				

00:45 - 01:00

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-C	137	34	575	0.237	137	0.3	0.3	8.621	A
B-A	86	21	366	0.235	86	0.3	0.3	12.849	B
C-AB	115	29	636	0.180	115	0.2	0.2	6.966	A
C-A	367	92			367				
A-B	63	16			63				
A-C	416	104			416				

01:00 - 01:15

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-C	111	28	612	0.182	112	0.3	0.2	7.558	A
B-A	70	18	412	0.170	71	0.3	0.2	10.563	B
C-AB	93	23	663	0.141	94	0.2	0.2	6.391	A
C-A	299	75			299				
A-B	51	13			51				
A-C	340	85			340				

01:15 - 01:30

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-C	93	23	637	0.147	94	0.2	0.2	6.962	A
B-A	59	15	444	0.132	59	0.2	0.2	9.357	A
C-AB	78	20	682	0.115	78	0.2	0.1	6.023	A
C-A	251	63			251				
A-B	43	11			43				
A-C	285	71			285				

Queue Variation Results for each time segment

00:00 - 00:15

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-C	0.18	0.00	0.00	0.18	0.18			N/A	N/A
B-A	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-AB	0.13	0.00	0.00	0.13	0.13			N/A	N/A

00:15 - 00:30

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-C	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B-A	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-AB	0.16	0.00	0.00	0.16	0.16			N/A	N/A

00:30 - 00:45

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-C	0.32	0.03	0.27	0.48	0.51			N/A	N/A
B-A	0.30	0.03	0.26	0.46	0.49			N/A	N/A
C-AB	0.22	0.03	0.26	0.46	0.49			N/A	N/A

00:45 - 01:00

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-C	0.32	0.03	0.33	1.14	1.46			N/A	N/A
B-A	0.30	0.03	0.31	1.07	1.38			N/A	N/A
C-AB	0.22	0.03	0.27	0.49	0.84			N/A	N/A

01:00 - 01:15

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-C	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B-A	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C-AB	0.17	0.00	0.00	0.17	0.17			N/A	N/A

01:15 - 01:30

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-C	0.18	0.00	0.00	0.18	0.18			N/A	N/A
B-A	0.15	0.00	0.00	0.15	0.15			N/A	N/A
C-AB	0.13	0.00	0.00	0.13	0.13			N/A	N/A

2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS

1	Abbey Gate	T-Junction	Two-way	Two-way	Two-way		2.40	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	45	Stream B-A	2.40	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	484	100.000
B		ONE HOUR	✓	187	100.000
C		ONE HOUR	✓	499	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	61	423
	B	61	0	126
	C	378	121	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	8
	B	0	0	3
	C	8	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-C	0.24	8.54	0.3	1.5	A	116	173
B-A	0.20	13.71	0.3	1.2	B	56	84
C-AB	0.21	7.39	0.3	1.3	A	111	167
C-A						347	520

A-B						56	84
A-C						388	582

Main Results for each time segment

00:00 - 00:15

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-C	95	24	637	0.149	94	0.0	0.2	6.828	A
B-A	46	11	415	0.111	45	0.0	0.1	9.720	A
C-AB	91	23	671	0.136	90	0.0	0.2	6.194	A
C-A	285	71			285				
A-B	46	11			46				
A-C	318	80			318				

00:15 - 00:30

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-C	113	28	611	0.185	113	0.2	0.2	7.442	A
B-A	55	14	380	0.144	55	0.1	0.2	11.069	B
C-AB	109	27	650	0.167	109	0.2	0.2	6.653	A
C-A	340	85			340				
A-B	55	14			55				
A-C	380	95			380				

00:30 - 00:45

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-C	139	35	573	0.242	138	0.2	0.3	8.523	A
B-A	67	17	330	0.204	67	0.2	0.3	13.669	B
C-AB	133	33	620	0.215	133	0.2	0.3	7.385	A
C-A	416	104			416				
A-B	67	17			67				
A-C	466	116			466				

00:45 - 01:00

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-C	139	35	573	0.242	139	0.3	0.3	8.542	A
B-A	67	17	330	0.204	67	0.3	0.3	13.710	B
C-AB	133	33	620	0.215	133	0.3	0.3	7.394	A
C-A	416	104			416				
A-B	67	17			67				
A-C	466	116			466				

01:00 - 01:15

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-C	113	28	611	0.185	114	0.3	0.2	7.464	A
B-A	55	14	380	0.144	55	0.3	0.2	11.106	B
C-AB	109	27	650	0.167	109	0.3	0.2	6.662	A
C-A	340	85			340				

A-B	55	14			55				
A-C	380	95			380				

01:15 - 01:30

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-C	95	24	636	0.149	95	0.2	0.2	6.855	A
B-A	46	11	415	0.111	46	0.2	0.1	9.763	A
C-AB	91	23	671	0.136	91	0.2	0.2	6.210	A
C-A	285	71			285				
A-B	46	11			46				
A-C	318	80			318				

Queue Variation Results for each time segment

00:00 - 00:15

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-C	0.18	0.00	0.00	0.18	0.18			N/A	N/A
B-A	0.12	0.00	0.00	0.12	0.12			N/A	N/A
C-AB	0.16	0.00	0.00	0.16	0.16			N/A	N/A

00:15 - 00:30

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-C	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B-A	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-AB	0.20	0.00	0.00	0.20	0.20			N/A	N/A

00:30 - 00:45

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-C	0.33	0.03	0.26	0.47	0.50			N/A	N/A
B-A	0.25	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.27	0.03	0.26	0.46	0.48			N/A	N/A

00:45 - 01:00

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-C	0.33	0.03	0.32	1.15	1.46			N/A	N/A
B-A	0.25	0.03	0.29	0.86	1.20			N/A	N/A
C-AB	0.27	0.03	0.30	0.94	1.25			N/A	N/A

01:00 - 01:15

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-C	0.24	0.00	0.00	0.24	0.24			N/A	N/A
B-A	0.17	0.00	0.00	0.17	0.17			N/A	N/A
C-AB	0.20	0.00	0.00	0.20	0.20			N/A	N/A

01:15 - 01:30

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-C	0.18	0.00	0.00	0.18	0.18			N/A	N/A
B-A	0.13	0.00	0.00	0.13	0.13			N/A	N/A
C-AB	0.16	0.00	0.00	0.16	0.16			N/A	N/A

Appendix 3 – Junctions 10 PICADY report for Symonds Lane Junction

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: Symonds Lane Priority Junction.j10
Path: C:\Users\Lewis.Kiely\Devon County Council\Transport Planning - Documents\Region Greater Exeter\East Devon\Local Plan\Site Review\Forecast SRN Flow
Report generation date: 24/01/2025 12:08:55

Summary of junction performance

	AM									PM								
	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025																	
Stream B-C	D1	0.7	3.0	10.68	0.42	B	4.16	A	38 % [Stream B-A]	D2	0.9	3.2	11.59	0.47	B	3.90	A	34 % [Stream B-A]
Stream B-A		0.1	0.5	16.85	0.07	C					0.0	0.5	17.34	0.03	C			
Stream C-AB		1.0	3.3	12.98	0.50	B					0.9	3.4	12.77	0.46	B			

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

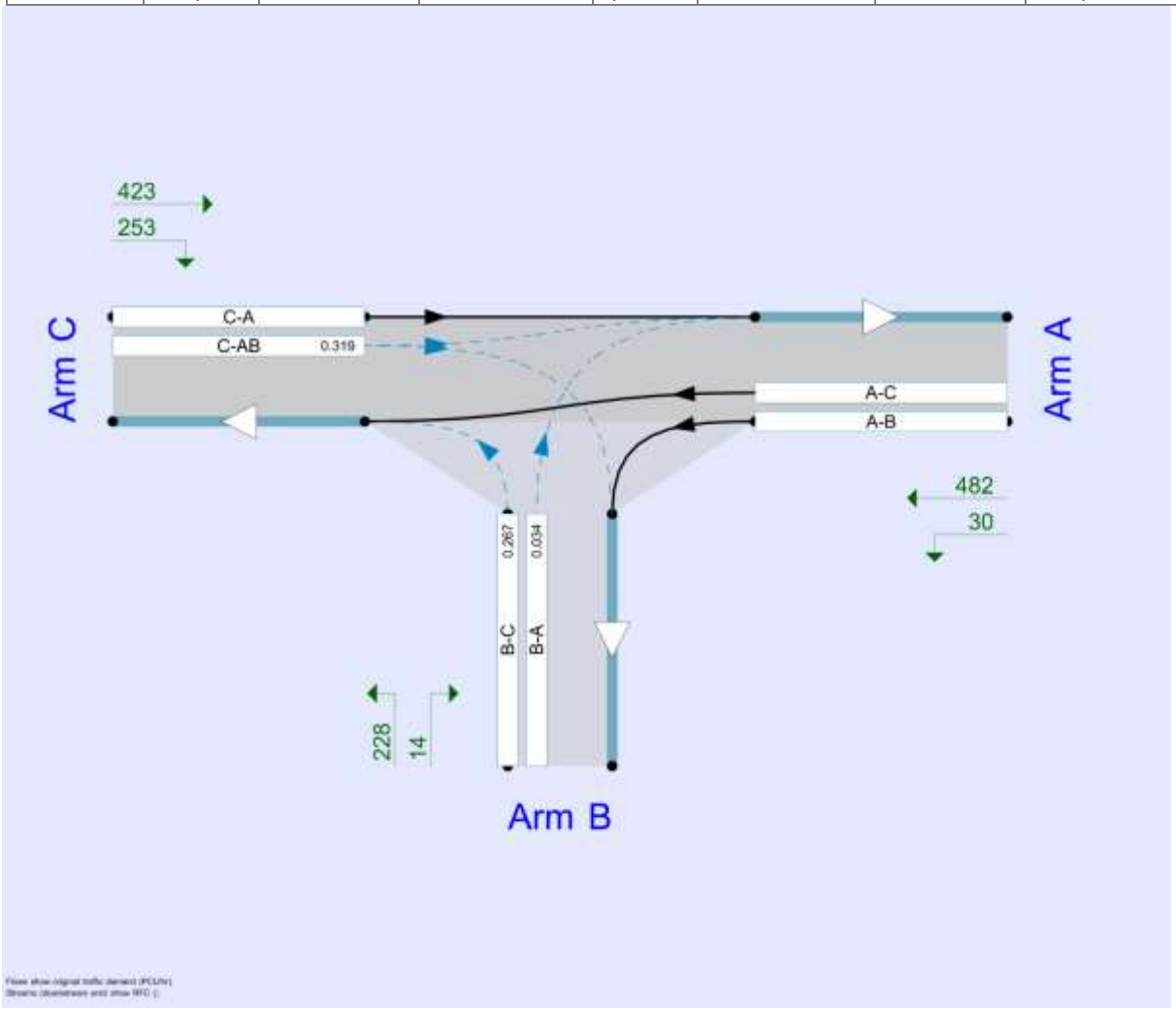
File Description

Title	
Location	
Site number	
Date	23/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DS2\Lewis.Kiely
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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	00:00	01:30	15	✓
D2	2025	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Symonds Lane A25 Axminster	T-Junction	Two-way	Two-way	Two-way		4.16	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	38	Stream B-A	4.16	A

Arms

Arms

Arm	Name	Description	Arm type
A	A35 West		Major
B	B3261		Minor
C	A35 East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	8.90		✓	3.00	100.0	✓	17.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.50	4.50	4.20	4.00	✓	2.00	36	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	469	0.074	0.188	0.118	0.268
B-C	742	0.100	0.253	-	-
C-B	687	0.233	0.233	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	512	100.000
B		ONE HOUR	✓	242	100.000
C		ONE HOUR	✓	676	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	30	482
	B	14	0	228
	C	423	253	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	6	8
	B	0	0	2
	C	8	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-C	0.42	10.68	0.7	3.0	B	209	314
B-A	0.07	16.85	0.1	0.5	C	13	19
C-AB	0.50	12.98	1.0	3.3	B	232	348
C-A						388	582
A-B						28	41
A-C						442	663

Main Results for each time segment

00:00 - 00:15

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-C	172	43	643	0.267	170	0.0	0.4	7.746	A
B-A	11	3	309	0.034	10	0.0	0.0	12.060	B

C-AB	190	48	597	0.319	189	0.0	0.5	8.771	A
C-A	318	80			318				
A-B	23	6			23				
A-C	363	91			363				

00:15 - 00:30

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-C	205	51	623	0.329	204	0.4	0.5	8.765	A
B-A	13	3	276	0.046	13	0.0	0.0	13.666	B
C-AB	227	57	580	0.392	227	0.5	0.6	10.175	B
C-A	380	95			380				
A-B	27	7			27				
A-C	433	108			433				

00:30 - 00:45

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-C	251	63	595	0.422	250	0.5	0.7	10.622	B
B-A	15	4	229	0.067	15	0.0	0.1	16.801	C
C-AB	279	70	556	0.501	277	0.6	1.0	12.855	B
C-A	466	116			466				
A-B	33	8			33				
A-C	531	133			531				

00:45 - 01:00

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-C	251	63	595	0.422	251	0.7	0.7	10.681	B
B-A	15	4	229	0.067	15	0.1	0.1	16.852	C
C-AB	279	70	556	0.501	279	1.0	1.0	12.977	B
C-A	466	116			466				
A-B	33	8			33				
A-C	531	133			531				

01:00 - 01:15

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-C	205	51	623	0.329	206	0.7	0.5	8.829	A
B-A	13	3	275	0.046	13	0.1	0.0	13.713	B
C-AB	227	57	580	0.392	229	1.0	0.7	10.292	B
C-A	380	95			380				
A-B	27	7			27				
A-C	433	108			433				

01:15 - 01:30

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-C	172	43	643	0.267	172	0.5	0.4	7.814	A
B-A	11	3	308	0.034	11	0.0	0.0	12.104	B
C-AB	190	48	597	0.319	191	0.7	0.5	8.883	A
C-A	318	80			318				
A-B	23	6			23				
A-C	363	91			363				

Queue Variation Results for each time segment

00:00 - 00:15

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-C	0.37	0.00	0.00	0.37	0.37			N/A	N/A
B-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.46	0.00	0.00	0.46	0.46			N/A	N/A

00:15 - 00:30

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-C	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B-A	0.05	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.63	0.19	0.92	1.38	1.44			N/A	N/A

00:30 - 00:45

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-C	0.73	0.03	0.26	0.73	0.73			N/A	N/A
B-A	0.07	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.98	0.03	0.26	0.98	0.98			N/A	N/A

00:45 - 01:00

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-C	0.74	0.03	0.29	1.08	3.05			N/A	N/A
B-A	0.07	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.99	0.03	0.28	0.99	3.34			N/A	N/A

01:00 - 01:15

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-C	0.51	0.05	0.47	1.31	1.42			N/A	N/A
B-A	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-AB	0.66	0.07	0.75	1.37	1.44			N/A	N/A

01:15 - 01:30

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-C	0.38	0.03	0.28	0.51	0.99			N/A	N/A
B-A	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.47	0.04	0.41	1.25	1.38			N/A	N/A

2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS

1	Symonds Lane A25 Axminster	T-Junction	Two-way	Two-way	Two-way		3.90	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	34	Stream B-A	3.90	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	549	100.000
B		ONE HOUR	✓	259	100.000
C		ONE HOUR	✓	722	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	32	517
	B	6	0	253
	C	492	230	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	4	8
	B	0	0	1
	C	8	4	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-C	0.47	11.59	0.9	3.2	B	232	348
B-A	0.03	17.34	0.0	0.5	C	6	8
C-AB	0.46	12.77	0.9	3.4	B	211	317
C-A						451	677

A-B						29	44
A-C						474	712

Main Results for each time segment

00:00 - 00:15

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-C	190	48	641	0.297	189	0.0	0.4	8.014	A
B-A	5	1	300	0.015	4	0.0	0.0	12.189	B
C-AB	173	43	591	0.293	171	0.0	0.4	8.894	A
C-A	370	93			370				
A-B	24	6			24				
A-C	389	97			389				

00:15 - 00:30

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-C	227	57	620	0.367	227	0.4	0.6	9.221	A
B-A	5	1	265	0.020	5	0.0	0.0	13.872	B
C-AB	207	52	572	0.361	206	0.4	0.6	10.213	B
C-A	442	111			442				
A-B	29	7			29				
A-C	465	116			465				

00:30 - 00:45

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-C	279	70	592	0.470	277	0.6	0.9	11.507	B
B-A	7	2	215	0.031	7	0.0	0.0	17.295	C
C-AB	253	63	546	0.464	252	0.6	0.9	12.668	B
C-A	542	135			542				
A-B	35	9			35				
A-C	569	142			569				

00:45 - 01:00

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-C	279	70	592	0.470	279	0.9	0.9	11.592	B
B-A	7	2	214	0.031	7	0.0	0.0	17.342	C
C-AB	253	63	546	0.464	253	0.9	0.9	12.768	B
C-A	542	135			542				
A-B	35	9			35				
A-C	569	142			569				

01:00 - 01:15

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-C	227	57	620	0.367	229	0.9	0.6	9.307	A
B-A	5	1	264	0.020	5	0.0	0.0	13.914	B
C-AB	207	52	572	0.361	208	0.9	0.6	10.314	B
C-A	442	111			442				

A-B	29	7			29				
A-C	465	116			465				

01:15 - 01:30

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-C	190	48	641	0.297	191	0.6	0.4	8.097	A
B-A	5	1	299	0.015	5	0.0	0.0	12.230	B
C-AB	173	43	591	0.293	174	0.6	0.4	8.994	A
C-A	370	93			370				
A-B	24	6			24				
A-C	389	97			389				

Queue Variation Results for each time segment

00:00 - 00:15

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-C	0.42	0.00	0.00	0.42	0.42			N/A	N/A
B-A	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.43	0.00	0.00	0.43	0.43			N/A	N/A

00:15 - 00:30

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-C	0.58	0.56	1.01	1.41	1.46			N/A	N/A
B-A	0.02	0.02	0.25	0.45	0.48			N/A	N/A
C-AB	0.58	0.57	1.04	1.46	1.51			N/A	N/A

00:30 - 00:45

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-C	0.88	0.03	0.26	0.88	0.88			N/A	N/A
B-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.88	0.03	0.27	0.88	0.88			N/A	N/A

00:45 - 01:00

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-C	0.89	0.03	0.28	0.89	3.21			N/A	N/A
B-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.89	0.03	0.29	0.96	3.41			N/A	N/A

01:00 - 01:15

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-C	0.59	0.07	0.72	1.36	1.44			N/A	N/A
B-A	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.60	0.07	0.70	1.39	1.48			N/A	N/A

01:15 - 01:30

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-C	0.43	0.04	0.36	1.18	1.35			N/A	N/A
B-A	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.44	0.04	0.36	1.20	1.38			N/A	N/A