



Dean Moor Solar Farm

ES Appendix 2.5 - Transport Statement - Appendix F - Appraisal of Traffic Surveys at Lillyhall Roundabout

on behalf of **FVS Dean Moor Limited**

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Firma Energy

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DEAN MOOR SOLAR FARM
APPENDIX 2.5 TRANSPORT STATEMENT
APPENDIX F – APPRAISAL OF TRAFFIC SURVEYS AT LILLYHALL
ROUNABOUT
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- Annex A – NH Correspondence
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1 Introduction

- 1.1.1 This Appraisal of Traffic Surveys at Lillyhall Roundabout [D4.17] is provided as Appendix F to the ES Appendix 2.5 Transport Statement (TS) [6.3] which has been prepared to support the application for a Development Consent Order (DCO) for the Dean Moor Solar Farm (the Proposed Development) on approximately 276.50ha of land located between the villages of Gilgarran and Branthwaite in West Cumbria (the Site) which sits in the administrative area of Cumberland Council (the Council).
- 1.1.2 The TS's assessment of the impact of the Proposed Development on the highway network has informed the relevant management and mitigation measures associated with its construction, operation and decommissioning, particularly via the ES Appendix 2.5 Outline Construction Traffic Management Plan (OCTMP) [6.3].
- 1.1.3 National Highways (NH), as a statutory consultee, provided a response to the Preliminary Environmental Impact Report (PEIR), from which concerns were expressed regarding the assessment of A595 and Lillyhall Roundabout. A more detailed assessment of this junction was undertaken and presented in a follow-up meeting with NH on 20 September 2024 (see Appendix E of the TS), and subsequently included in the TS / OCTMP.
- 1.1.4 The assessment utilised a combination of relevant pre-existing WebTRIS data and traffic survey data commissioned in April 2023, by the Applicant, on the Local Road Network (LRN) and Strategic Road Network (SRN). The results of the assessment evidenced that there would be a negligible impact on A595 from both the construction and operation of the Proposed Development and through a reasonable worst-case cumulative scenario of concurrent construction of the Proposed Development and the Lostrigg Solar development, which has since been withdrawn as a DCO but is anticipated to come forward as a future TCPA application. This was confirmed through comparative engagement with the preliminary assessment being undertaken by the transport team for Lostrigg Solar.

- 1.1.5 The TS has provided compelling data and analysis of the forecast effects of the construction and operational period for the Proposed Development on the Lillyhall Roundabout and adjoining A595. That evidence has demonstrated the de minimis impacts on those aspects of the SRN.
- 1.1.6 NH has maintained concerns that further information was required to understand the extent of any impacts with regards to Lillyhall Roundabout. The Applicant has therefore collected further network user data, including link flow trend information and turning movement and queue length data at the Lillyhall Roundabout.
- 1.1.7 NH has stated that further information on Lillyhall Roundabout will allow it to determine whether impacts on the junction will be significant or not and stated in the draft Statement of Common Ground submitted [dSoCG] at D2 [\[REP2-019\]](#) :
- Throughout the engagement process, further information has been requested by NH relating to up-to-date baseline traffic flows and the operation of the Lillyhall roundabout itself in order to fully understand the potential traffic impact of the Proposed Development.*
- This information is required to understand the extent of any congestion and/or queuing that may be exacerbated by the traffic flows associated with the Proposed Development. To date, this information has not been provided.*
- It is understood that the Applicant is committed to the collection of turning count, queue and ATC data at Lillyhall Roundabout in September 2025 and this is welcomed.*
- NH will work with the Applicant and undertake a timely review of this additional data when received.*
- 1.1.8 This Technical Note (TN) has been prepared to address this matter and is included as Appendix F in the updated TS **[D4.16]**.
- 1.1.9 Engagement with NH confirming the survey dates and approach is detailed in Annex A. The process of engagement with NH will continue through the provision of this Technical Note and correspondence exchange as needed.

2 Background

- 2.1.1 The assessment included within the TS and OCTMP utilised Automatic Traffic Count (ATC) survey data collected on the unclassified road east of Lillyhall Roundabout (part of the LRN and hereby referred to as 'Branthwaite Road') and NH data from WebTRIS collected on A595 north of the junction (part of the SRN). The WebTRIS data was extracted for the same week from which the ATC data was collected (17 April 2023 to 23 April 2023) and is therefore considered complementary and reflective of the same road conditions. This approach reflected NH's response to the PEIR.
- 2.1.2 The TS appraised the forecast effects of the Proposed Development and concluded that there would be no significant effects on the LRN and SRN during the construction, operation and decommissioning of the Proposed Development. Appropriate and proportionate assessments of effects had been applied through the TS. Necessary mitigation was proposed in accordance with National Policy Statement (NPS) EN-1¹ paragraphs 4.2.10 to 4.2.12 and the mitigation strategy as indicated within EN-1 Section 5.13.
- 2.1.3 As demonstrated in the TS, the impact of the Proposed Development is considered negligible on the LRN and SRN, active travel, and bus services. The Council and NH concurred with this position throughout their responses to the scoping report of the ES (see Appendix C and D of the TS). This application's assessment's have concluded that traffic and access impacts resulting from the construction and decommissioning of the Proposed Development, including any cumulative effects from local developments will be mitigated where possible through a series of measures which are detailed in the OCTMP.

¹ Department for Energy Security and Net Zero: Overarching National Policy Statement for Energy (EN-1) (March 2023) [Accessed 8 October 2025]

3 Baseline Flows

3.1.1 To respond to the request made by NH through its response to the DCO application and to assist with substantiating the appraisal of traffic and access effects at the Lillyhall Roundabout, further surveys at Lillyhall Roundabout were collected between Wednesday 17 September 2025 and Tuesday 23 September 2025, the appraisal of which is outlined in the following sections of this TN. The surveys were commissioned with the following specifications:

- ATC surveys (A595 north/south, Branthwaite Road, Blackwood Road): 7-day (24-hr), 00:00-23:59;
- Junction Turning Count (JTC) survey: 1-day (neutral weekday), 07:00-19:00;
- Non-Motorised User (NMU) survey: 1-day (neutral weekday), 07:00-19:00;
- Queue survey: 1-day (neutral weekday), 07:00-19:00.

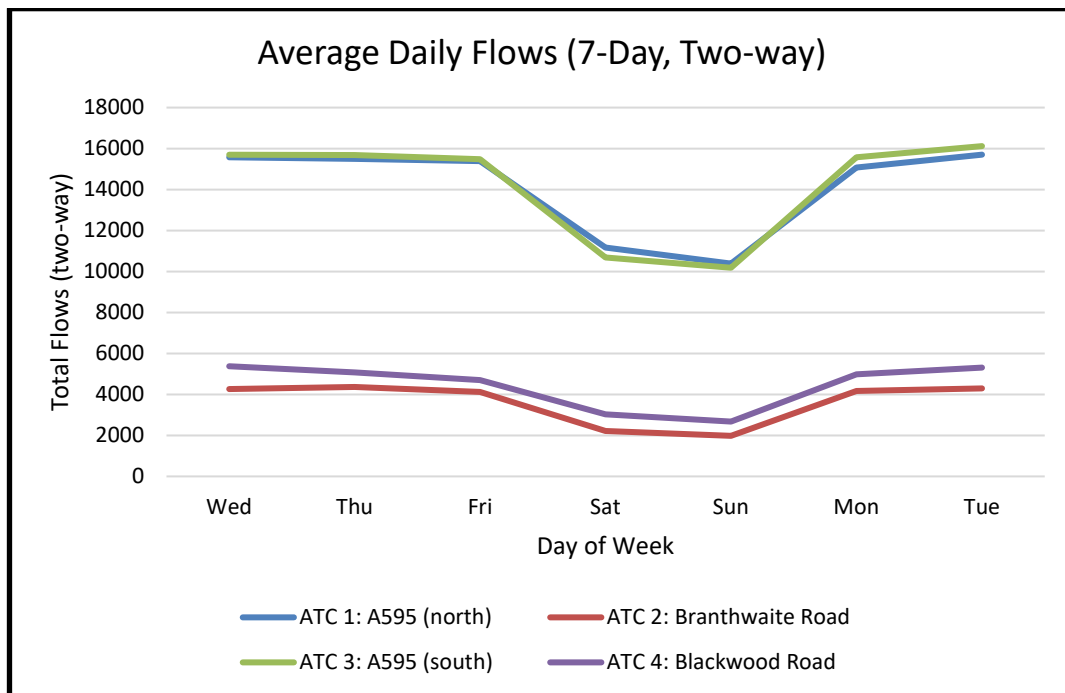
3.2 Automatic Traffic Count

3.2.1 Table 3.1 details the average daily flows on A595, Branthwaite Road and Blackwood Road for the 5-day (Monday to Friday) and 7-day (Monday to Sunday) period. The 7-day two-way trend flows are also shown in Figure 3.1.

Table 3.1: ATC Survey Summary

ATC	Description	Direction	5-Day (Vehs.)	7-Day (Vehs.)
1	A595 (north of Lillyhall Roundabout)	Northbound	7,852	7,160
		Southbound	7,594	6,953
		Two-way	15,446	14,113
2	Branthwaite Road (east of Lillyhall Roundabout)	Eastbound	2,066	1,768
		Westbound	2,175	1,861
		Two-way	4,241	3,629
3	A595 (south of Lillyhall Roundabout)	Northbound	7,627	6,916
		Southbound	8,087	7,290
		Two-way	15,714	14,206
4	Blackwood Road (west of Lillyhall Roundabout)	Eastbound	2,893	2,510
		Westbound	2,198	1,942
		Two-way	5,091	4452

Figure 3.1: Average Daily Flows (7-Day, 24-hr, Two-way)



3.2.2 Vehicle flows are evidenced to be consistent throughout the weekday, with a reduction in flows at the weekend. A595 is significantly busier than Branthwaite Road and Blackwood Road. The empirical data indicates that the substantive proportion (78%) of traffic flow on the links connecting to Lillyhall Roundabout are on A595 in a north/south direction.

3.2.3 There is no recent guidance published regarding the theoretical capacity of a highway link, however according to TA 79/99 of the Design Manual for Roads and Bridges (DMRB)² publication (which has since been withdrawn), the theoretical capacity of a two-way single carriageway urban road is between 1,020 to 1,320 vehicles per hour, equivalent to 24,480 to 31,680 vehicles over a 24-hr period. The equivalent advice for rural roads (also since withdrawn) was TA 46/97³. That indicated at Annex D an approximate Congestion Reference Flow of circa 22,000 vehicles per day for a single carriageway road (circa 7.3m wide).

² DMRB Withdrawn Volume 5 Section 1, Part 3 TA 79/99 Amendment No 1: Traffic Capacity for Urban Roads (February 1999) ([TA 79/99](#)) [Accessed 7 October 2025]

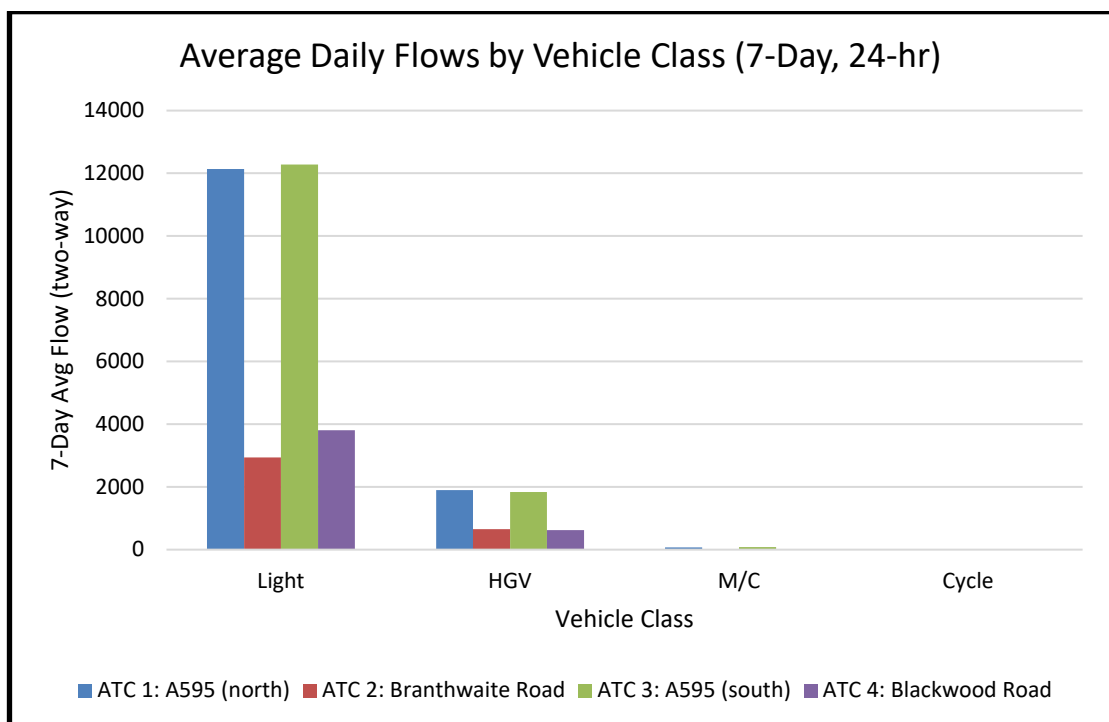
³ DMRB Withdrawn Volume 5 Section 1 Part 3 Traffic Flow Ranges For Use In The Assessment Of New Rural Roads ([TA 46/97](#)) [Accessed 7 October 2025]

- 3.2.4 As shown in the ATC data, the links are below these thresholds, and are therefore not considered to be over capacity or, indeed, near theoretical capacity..
- 3.2.5 7-day two-way average daily flows, split by vehicle classifications, are summarised in Table 3.2 and Figure 3.2. An indication of percentage share of total vehicles is also provided.

Table 3.2: Average Daily Flows by Vehicle Class (7-Day, 24-hr)

ATC	Description	Light Vehicle (LGV + Car)	Heavy Goods Vehicle (HGV)	Motorcycle (M/C)	Cycle
1	A595 (north of Lillyhall Roundabout)	12,133 (86% of total)	1,903 (13% of total)	72 (>1% of total)	6 (>1% of total)
2	Branthwaite Road (east of Lillyhall Roundabout)	2,944 (81% of total)	656 (18% of total)	24 (>1% of total)	5 (>1% of total)
3	A595 (south of Lillyhall Roundabout)	12,284 (86% of total)	1,833 (13% of total)	80 (>1% of total)	8 (>1% of total)
4	Blackwood Road (west of Lillyhall Roundabout)	549 (85% of total)	624 (14% of total)	21 (>1% of total)	4 (>1% of total)

Figure 3.2: Average Daily Flows by Vehicle Class (7-Day, 24-hr)



- 3.2.6 Over 80% of vehicle traffic on A595, Branthwaite Road and Blackwood Road is attributed to LGV (which includes cars, light vans, and short towing vehicles with trailers, caravans, boats etc). HGVs comprise 13-14% of

vehicles on A595 and Blackwood Road, with a slight increase in mode share on Branthwaite Road with 18%. A very small number of vehicles (fewer than 1%) are classified as MC or pedal cycles.

3.3 Junction Turning Count

3.3.1 Table 3.3 identifies the results of the JTC survey, which is representative of a 12-hour day (07:00-19:00) on Wednesday 17 September 2025. The links are marked by the following:

- A – A595 (north of Lillyhall Roundabout);
- B – Branthwaite Road (east of Lillyhall Roundabout);
- C – A595 (south of Lillyhall Roundabout); and
- D – Blackwood Road (west of Lillyhall Roundabout).

Table 3.3: JTC Survey (1-day, 12-hr)

		Arm Destination (Vehs.)				
		A	B	C	D	Total
Arm Origin (Vehs.)	A	0	398	5266	647	6311
	B	509	1	681	713	1904
	C	5415	480	67	586	6548
	D	1044	926	641	3	2614
	Total	6968	1805	6655	1949	

3.3.2 A large proportion of movements at Lillyhall Roundabout are for north to south and south to north movements along A595 (i.e. A to C and C to A). 83% of movements southbound on A595 north are continuing south on A595, and 78% of movements northbound on A595 south are continuing north on A595.

3.3.3 The least observed turning movement (excluding u-turns) at Lillyhall Roundabout were travelling southbound on A595 and turning left onto Branthwaite Road (i.e. A to B) (398 movements observed). This is followed by vehicles travelling northbound on A595 and turning right onto Branthwaite Road (i.e. C to B) (480 movements observed).

3.3.4 Based on the observed movements from the JTC survey, Branthwaite Road is the least utilised link at Lillyhall Roundabout. This aligns with the results of the ATC surveys.

- 3.3.5 Table 3.4 identifies the results of the JTC survey for HGVs only. A percentage of total traffic volume is also indicated in the totals columns.

Table 3.4: JTC Survey (HGVs only) (1-day, 12-hr)

		Arm Destination (HGVs)				
		A	B	C	D	Total
Arm Origin (HGVs)	A	0	82	294	44	420 (7% of total)
	B	69	1	37	48	155 (8% of total)
	C	306	22	4	52	384 (6% of total)
	D	56	79	30	0	165 (6% of total)
	Total	431 (6% of total)	184 (10% of total)	365 (5% of total)	144 (7% of total)	

- 3.3.6 HGV movements to and from Branthwaite Road have a higher mode share than other links at the junction, accounting for 10% of observed HGV movements with Branthwaite Road as a destination and 8% of observed HGV movements with Branthwaite Roads as an origin. This also aligns with the ATC surveys which indicate a higher mode share of HGVs on the link.

3.4 Non-Motorised User

- 3.4.1 Table 3.5 summarises the results of the NMU survey and follows the same naming convention as the JTC survey. The results are representative of a 12-hour day (07:00-19:00) on Wednesday 17 September 2025.

Table 3.5: NMU Survey (1-day, 12-hr)

		Arm Destination (NMUs)				
		A	B	C	D	Total
Arm Origin (NMUs)	A	0	4	3	0	7
	B	3	0	19	14	36
	C	5	6	1	4	16
	D	6	4	5	0	15
	Total	14	14	28	18	

- 3.4.2 The highest number of NMU movements are from Branthwaite Road to A595 (south of Lillyhall Roundabout) (i.e. B to C), followed by movements from Branthwaite Road to Blackwood Road (i.e. B to D).

- 3.4.3 The NMU volumes identified from the survey are low and there were no observed capacity and low comfort levels noted within the surveys.

3.5 Queue Length

- 3.5.1 Table 3.6 summarises the results of the vehicle queue survey, which is representative of a 12-hour day (07:00-19:00) on Wednesday 17 September 2025. The figures stated in Table 3.6 are averages for each hour from the maximum values observed in five minute intervals. Table 3.7 indicates the peak observed queue for each arm of the junction.

Table 3.6: Queue Survey Results (1-day, 12-hr)

Hour	A595 (north)		Branthwaite Rd		A595 (south)		Blackwood Rd	
	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2
07:00	3	1	1	1	1	0	1	0
08:00	3	1	3	2	3	0	1	0
09:00	3	0	2	1	2	0	1	0
10:00	1	1	1	0	0	0	1	1
11:00	2	0	1	0	1	0	1	0
12:00	2	0	1	0	0	0	1	1
13:00	3	0	1	1	1	0	1	1
14:00	2	0	1	0	0	0	2	1
15:00	4	0	3	1	1	0	2	1
16:00	4	1	2	2	2	0	5	2
17:00	3	0	1	1	2	0	2	1
18:00	2	0	1	0	0	0	1	0
Average	3	0	2	1	1	0	2	1

Table 3.7: Queue Survey Peak Results (1-day, 12-hr)

Hour	A595 (north)		Branthwaite Rd		A595 (south)		Blackwood Rd	
	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2
Peak Interval	09:20	08:15	08:45	17:00	16:20	12:15	16:20	16:20
	17	2	8	6	11	2	11	4

- 3.5.2 The average queue length ranged between zero to three, with A595 (north of Lillyhall Roundabout) recording the highest average queue.
- 3.5.3 The peak five minute interval was on A595 (north) at 0920 at 17 vehicles, however the data evidences that this peak was preceded by an observation

of a three vehicle queue and quickly dropped back down to one vehicle in the next 5-minute interval. This is the same case for the other peak observations on Branthwaite Road, A595 (south) and Blackwood Road.

3.5.4 The full table displaying 5-minute intervals from the queue survey is detailed in Annex B.

3.5.5 Figure 3.3 to

Figure 3.6 display the results of the queue survey in graph format.

Figure 3.3: Queue Survey - A595 (north) (1-day, 12-hr)

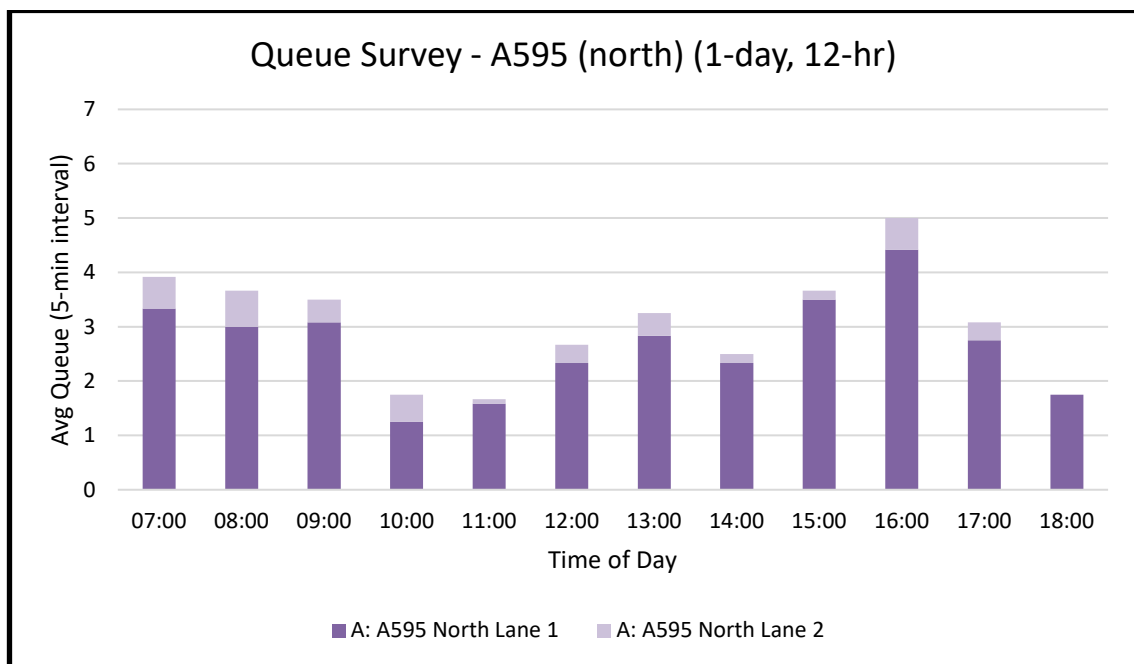


Figure 3.4: Queue Survey - Branthwaite Road (1-day, 12-hr)

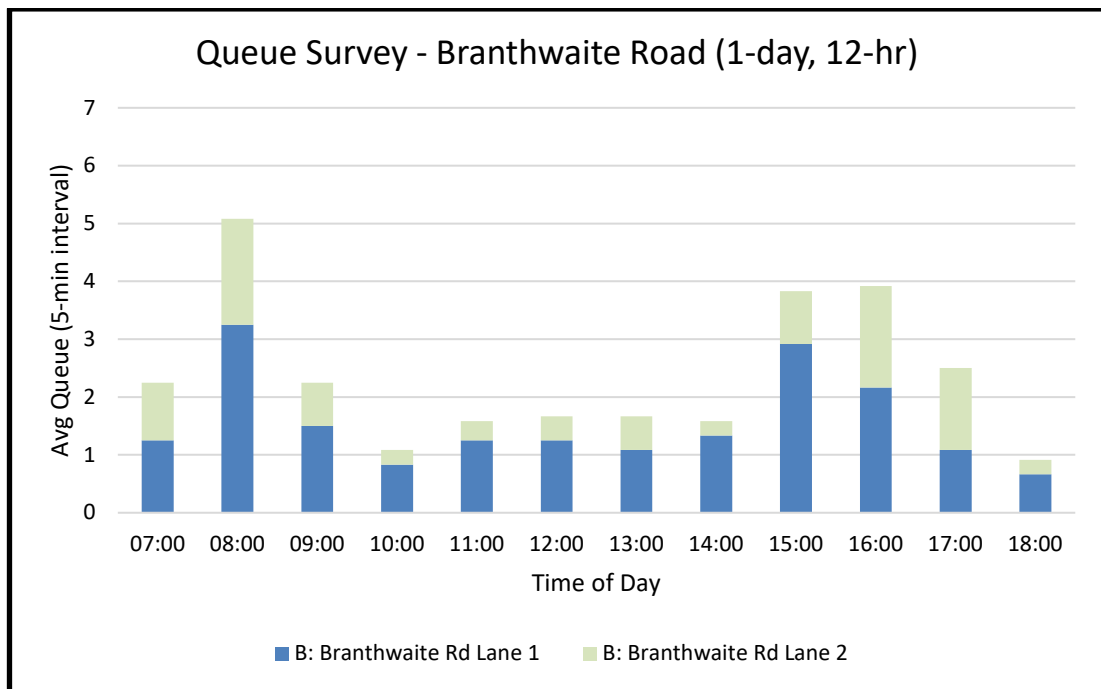


Figure 3.5: Queue Survey - A595 (south) (1-day, 12-hr)

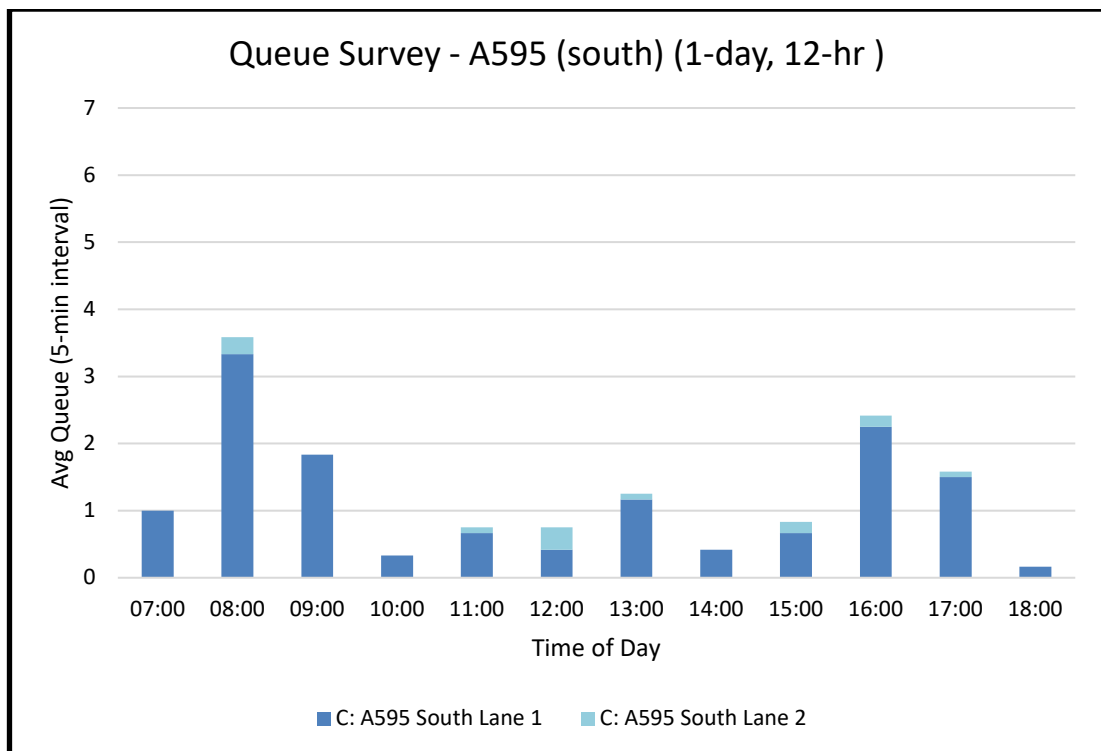
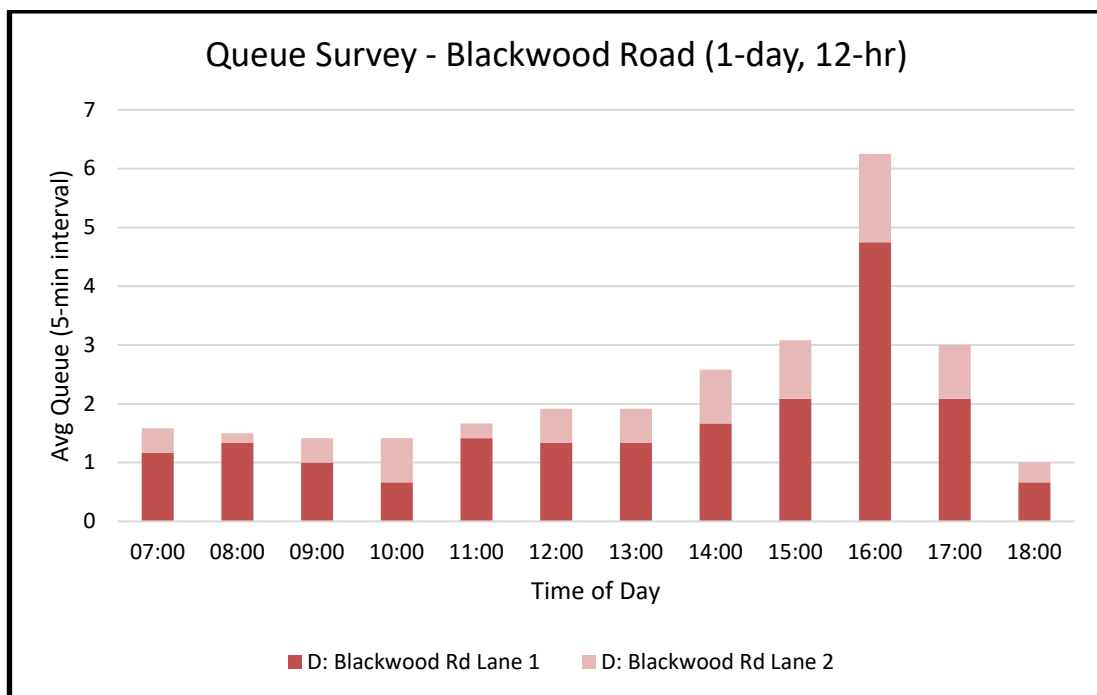


Figure 3.6: Queue Survey - Blackwood Road (1-day, 12-hr)



- 3.5.6 The queues at each junction follow a similar pattern, with peaks in the afternoon from 15:00 to 17:00. Branthwaite Road and A595 also have higher peaks in the morning between 08:00 to 09:00. Queue lengths are lower during the interpeak periods.

3.6 Summary of Empirical Data

- 3.6.1 Between 17 and 23 September 2025, a comprehensive suite of traffic surveys was conducted at Lillyhall Roundabout, including ATC, JTC, NMU and queue length assessments. The A595 corridor exhibited the largest proportion of traffic volumes with consistent weekday flows and notable reductions over the weekend. Light vehicles accounted for over 80% of all traffic across all links, while HGVs showed a higher proportional presence on Branthwaite Road.
- 3.6.2 Queue surveys indicated very low congestion levels, with peak queues observed during morning and afternoon periods, notably on A595 (north). Overall, traffic volumes remain below theoretical capacity thresholds, suggesting the junction operates efficiently under current conditions.

4 Trip Generation and Distribution

- 4.1.1 As stated in Section 4 of the OCTMP, construction of the generating station (including solar PV and associated infrastructure) is projected to require around 3,750 HGVs and 1,250 Light Goods Vehicles (LGVs) across the course of the construction programme. Based on a 5.5 day working week this would equate to an average of approximately 18 HGV movements (nine arrivals and nine departures) and six LGV movements (three arrivals and three departures) per day.
- 4.1.2 It is recognised that a flat profile across the programme is unlikely and there will be peaks in activity. During these peak periods it is forecast that a daily average of 40 HGV movements (20 arrivals and 20 departures) and 16 LGV movements (eight arrivals and eight departures) could be anticipated.
- 4.1.3 The peak staff requirement per day is expected to be up to 150 people, with an average to be between 50-80 per day. Assuming a 50-50 mode-split of staff accessing by private car and minibus (and assuming 1.5 people per car and seven people per minibus).
- 4.1.4 It is likely that minibuses will shuttle staff from nearby Workington, and therefore the minibus estimate is based on an assumption of a round-trip journey time of approximately 30 minutes and each minibus making two round-trips for mobilisation and demobilisation periods. Assuming seven people per minibus, this equates to up to six minibuses (24 minibus arrivals and departures (i.e. 2 round-trips per minibus)). More than six minibuses, potentially up to 10, could be utilised depending on demand from workers.
- 4.1.5 Full details regarding trip generation are shown in the TS and OCTMP.

4.2 Cumulative Development

- 4.2.1 For the purpose of the TS assessment it is considered possible that there may be some overlap between the construction programmes of the Proposed Development and Lostrigg Solar which has a potential area located north of Branthwaite Road north of Area A of the Proposed Development. The trip-generation for Lostrigg Solar as reported in that scheme's Scoping has

therefore been included in the impact assessment by means of assessing a reasonable worst-case cumulative scenario.

- 4.2.2 The trip generation for Lostrigg Solar has been extracted from Section 17.6 of the EIA Scoping Report⁴:

A total of 18 HGV trips (36 two-way movements) and 8 car/LGV trips (16 two-way movements) could see a total of 26 (52 two-way movements) being added onto the network per day during the construction phase of the development.

- 4.2.3 The proposed vehicle routeing for access to Lostrigg Solar remains to be confirmed by that applicant.(RWE). However, based on previous engagement with RWE (see TS Appendix E) it is assumed that vehicles will adopt a left-in/left-out approach for the access located on the A595. Therefore, vehicles departing that site will utilise Lillyhall Roundabout to make a u-turn to head north rather than make a right turn across the carriageway. In the absence of confirmed trip distribution figures, a reasonable worst-case assumption has been made for 100% of vehicles accessing via A595 and executing a u-turn on Lillyhall Roundabout on departure from that site.
- 4.2.4 The total reasonable worst-case scenario peak daily forecast trip generation for the Proposed Development plus Lostrigg Solar on the A595 corridor is up to 76 HGV movements (38 arrivals and 38 departures) and up to 156 LGVs/cars/shuttles movements (78 arrivals and 78 departures).

⁴ RWE Lostrigg Solar EIA Scoping Report – Main Text (June 2024) [Accessed 8 October 2025]

5 Impact Assessment

- 5.1.1 Table 5.1 details the percentage impact on A595 (north and south), Branthwaite Road and Blackwood Road. As vehicles are not proposed to be routed along A595 (south) or Blackwood Road (for the Proposed Development and Lostrigg Solar), the percentage impact is zero.

Table 5.1: Percentage Impact (7-day average, 24-hr)

ATC	Link	Direction	Trip Generation*		% Impact	
			All	HGV	All	HGV
1	A595 (north)	NB	116	38	1.62%	3.91%
		SB	116	38	1.67%	4.08%
		Two-way	232	76	1.64%	3.99%
2	Branthwaite Road	EB	90	20	5.09%	5.94%
		WB	90	20	4.84%	6.25%
		Two-way	180	40	4.96%	6.09%
3	A595 (south)	NB	0	0	0.00%	0.00%
		SB	0	0	0.00%	0.00%
		Two-way	0	0	0.00%	0.00%
4	Blackwood Road	EB	0	0	0.00%	0.00%
		WB	0	0	0.00%	0.00%
		Two-way	0	0	0.00%	0.00%

* Inclusive of Proposed Development trip gen + Lostrigg Solar trip gen

- 5.1.2 The percentage impact on A595 (north) for all vehicles is around 1.6%, with the percentage impact on HGVs slightly higher at around 4%. In accordance with Institute of Environmental Management and Assessment (IEMA)⁵ Guidance assessment thresholds, this is considered to be a negligible change in traffic flows on the road and is therefore not noted to be having a significant effect.

- 5.1.3 The IEMA Guidance thresholds are as stated:

Two rules of thumb as criteria to assist in delimiting the scale and extent of the environmental assessment:

1. Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%); and

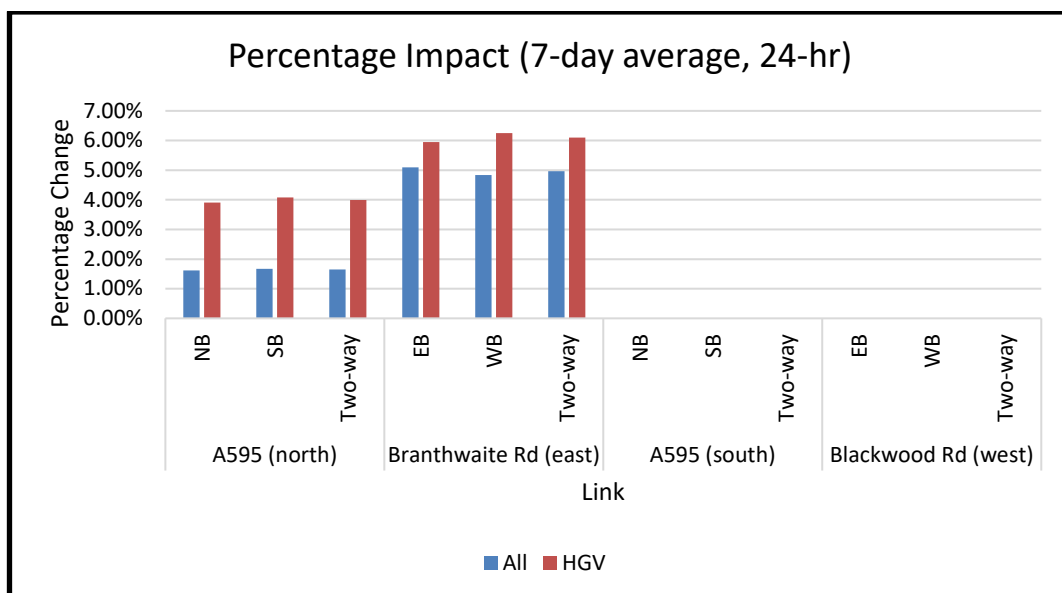
⁵ IEMA Guidelines: Environmental Assessment of Traffic and Movement (July 2024) [Accessed 8 October 2025]

2. Include highway links of high sensitivity where traffic flows have increased by 10% or more.

5.1.4 The percentage impact on Branthwaite Road sits at around 5% for all vehicles, and 6% for HGVs. The percentage change between all vehicle classes and HGVs is lower than on A595, likely due to the higher baseline mode proportion of HGVs on Branthwaite Road. The overall effect on Branthwaite Road is considered to be insignificant.

5.1.5 Figure 5.1 displays the percentage impact of all vehicles and HGVs in graph format.

Figure 5.1: Percentage Impact (7-day average, 24-hr)



5.1.6 Table 5.2 displays the reasonable worst-case cumulative scenario trip generation at Lillyhall Roundabout and proposed turning movements (inclusive of the Proposed Development and Lostrigg Solar).

Table 5.2: Turning Movement Daily Trip Generation

		Arm Destination (Vehs.)				
		A	B	C	D	Total
Arm Origin (Vehs.)	A	26	90	0	0	116
	B	90	0	0	0	90
	C	0	0	0	0	0
	D	0	0	0	0	0
	Total	116	90	0	0	

5.1.7 Table 5.3 summarises the percentage impact of turning movements at Lillyhall Roundabout for all vehicle classifications.

Table 5.3: Turning Movement Percentage Impact (12-hr)

		Arm Destination				
		A	B	C	D	Total
Arm Origin	A	100%	23%	0%	0%	1.84%
	B	18%	0%	0%	0%	4.73%
	C	0%	0%	0%	0%	0.00%
	D	0%	0%	0%	0%	0.00%
	Total	1.66%	4.99%	0.00%	0.00%	

5.1.8 Table 5.4 summarises the percentage impact of turning movements at Lillyhall Roundabout for HGVs.

Table 5.4: Turning Movement Percentage Impact - HGVs (12-hr)

		Arm Destination				
		A	B	C	D	Total
Arm Origin	A	100%	24%	0%	0%	9.0%
	B	29%	0%	0%	0%	12.9%
	C	0%	0%	0%	0%	0.0%
	D	0%	0%	0%	0%	0.0%
	Total	8.8%	10.9%	0.0%	0.0%	

5.1.9 Movements making a u-turn from A595 (north) to A595 (north) (i.e. A to A) show a 100% increase for all vehicles and HGVs, due to the baseline turning movement record being zero. The development movements are solely a result of the vehicle routeing assumption associated with Lostrigg Solar. This is a worst-case scenario since it is not anticipated that this full volume of construction vehicles will be executing this manoeuvre during the construction phase.

5.1.10 The percentage impact on turning movements is not considered to have a significant impact on the junction or its operating capacity or queueing, especially given the temporary nature of the construction phase it is considered to have a negligible effect.

6 Summary

- 6.1.1 This Technical Note presents the results of traffic surveys undertaken at Lillyhall Roundabout to address concerns raised by NH regarding potential impacts from the Proposed Development and also a review of the cumulative assessment with the potential Lostrigg Solar development.
- 6.1.2 Baseline traffic flows at the junction are not high, with volumes well below theoretical capacity thresholds. A595 is the busiest link, but overall flows are consistent and manageable.
- 6.1.3 The construction phase of the Proposed Development is temporary, and associated traffic impacts are therefore temporary and not significant. Queuing at the junction is limited, with short-lived peaks during typical morning and afternoon periods.
- 6.1.4 The percentage impact in traffic volumes and turning movements resulting from the Proposed Development and Lostrigg Solar is low, around 1.6% on A595 and up to 6% on Branthwaite Road – indicating no significant effect on junction operation.
- 6.1.5 The analysis confirms that the Proposed Development will not materially affect the performance of Lillyhall Roundabout, and the approach taken to mitigation of effects through the measures within the OCTMP is proportionate and appropriate.

Annex A – NH Correspondence

Stantec email to NH dated 29 August 2025

From: FL <X@stantec.com>
Sent: 29 August 2025 11:48
To: LA <X@nationalhighways.co.uk>; AF <X@wsp.com>
Cc: AN <X@stantec.com>; SC <X@stantec.com>; JL <X@stantec.com>; TH <X@stantec.com>
Subject: RE: SoCG Dean Moor DCO - Lillyhall Road / Parking and Minibus Provision

Hi LA / AF,

Regarding the traffic surveys which are planned to take place in a few weeks (starting 17th Sept) at Lillyhall roundabout, it has been flagged by the survey company that there is an HGV diversionary route along A595 from 12th Sept 2025 to 31st March 2026. The Lillyhall roundabout is part of the HGV diversion route as a result of works taking place at Ramsay Brow in Workington. Further information can be found here: <https://one.network/?tmi=GB40545689>

The schools and colleges in the area are returning on different days starting next week (w/c 1st Sept), the lane closure on A595 south of Lillyhall roundabout is in place until 7th Sept and the survey company have indicated that they don't have capacity to bring the surveys forward. This limits our ability to get the surveys carried out before the diversion is in place.

Our current view is that the surveys can still be undertaken as planned and the HGV diversion is unlikely to have a significant impact on the Lillyhall roundabout and the data collection. We can also compare WebTRIS data before / after the diversion is in place to check if there are any notable changes in HGV movements. We also need to bear in mind the examination programme and the need to conclude this issue before the examination ends in December.

Please may you confirm if you are satisfied with this approach and that we may still undertake the surveys as planned?

Kind regards,

FL

Transport Planner



NH email reply dated 1 September 2025

From: LA <X@nationalhighways.co.uk>
Sent: 01 September 2025 12:42
To: FL <X@stantec.com>; AF <X@wsp.com>
Cc: AN <X@stantec.com>; SC <X@stantec.com>; JL <X@stantec.com>; TH <X@stantec.com>
Subject: RE: SoCG Dean Moor DCO - Lillyhall Road / Parking and Minibus Provision

Good morning, FL,

Thank you for your email below providing an update of the proposed traffic surveys.

I can confirm that National Highways are happy with the proposed approach suggested below and to undertake the surveys as planned.

Kind Regards

LA

LA, PGCE,
Spatial Planner
Network Development & Planning Team
OD DI Lead

Annex B – Queue Survey Record

Survey Period			A - (North East) A595		B - Unnamed Road		C - (South West) A595		D - Blackwood Road	
			Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2
			MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX
07:00	-	07:05	2	0	0	2	0	0	0	0
07:05	-	07:10	2	0	0	0	0	0	1	0
07:10	-	07:15	4	0	2	2	1	0	2	1
07:15	-	07:20	4	1	1	1	0	0	1	0
07:20	-	07:25	2	0	1	0	0	0	1	0
07:25	-	07:30	5	1	2	0	1	0	0	0
07:30	-	07:35	2	1	0	1	0	0	1	0
07:35	-	07:40	4	1	1	1	2	0	2	2
07:40	-	07:45	3	1	3	2	1	0	2	0
07:45	-	07:50	4	1	1	0	2	0	1	1
07:50	-	07:55	4	1	3	1	2	0	2	1
07:55	-	08:00	4	0	1	2	3	0	1	0
08:00	-	08:05	4	1	1	1	2	1	3	0
08:05	-	08:10	4	1	2	2	2	1	1	1
08:10	-	08:15	1	1	3	4	4	0	2	0
08:15	-	08:20	4	2	2	3	4	0	2	0
08:20	-	08:25	4	0	2	3	3	1	1	1
08:25	-	08:30	3	2	4	4	7	0	2	0
08:30	-	08:35	3	0	5	2	4	0	2	0
08:35	-	08:40	3	0	3	0	2	0	0	0
08:40	-	08:45	4	0	1	1	1	0	1	0
08:45	-	08:50	2	0	8	0	5	0	2	0
08:50	-	08:55	1	0	4	1	4	0	0	0
08:55	-	09:00	3	1	4	1	2	0	0	0
09:00	-	09:05	2	2	1	0	3	0	2	1
09:05	-	09:10	0	0	1	0	4	0	2	1
09:10	-	09:15	4	0	1	1	3	0	0	2
09:15	-	09:20	3	0	2	2	2	0	1	0
09:20	-	09:25	17	1	1	2	0	0	1	1
09:25	-	09:30	1	1	1	0	2	0	0	0
09:30	-	09:35	1	0	4	1	4	0	1	0
09:35	-	09:40	2	0	1	0	0	0	1	0
09:40	-	09:45	2	0	0	0	0	0	0	0
09:45	-	09:50	1	0	2	0	0	0	0	0
09:50	-	09:55	4	1	2	2	2	0	3	0
09:55	-	10:00	0	0	2	1	2	0	1	0
10:00	-	10:05	0	0	0	0	1	0	0	0
10:05	-	10:10	1	0	0	1	0	0	2	0
10:10	-	10:15	0	1	2	0	2	0	0	2
10:15	-	10:20	2	0	3	2	0	0	0	0

Survey Period			A - (North East) A595		B - Unnamed Road		C - (South West) A595		D - Blackwood Road	
			Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2
			MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX
10:20	-	10:25	1	1	0	0	0	0	1	0
10:25	-	10:30	3	0	0	0	0	0	0	0
10:30	-	10:35	0	0	3	0	0	0	0	0
10:35	-	10:40	1	0	0	0	0	0	0	0
10:40	-	10:45	2	2	1	0	0	0	2	2
10:45	-	10:50	2	0	0	0	0	0	1	3
10:50	-	10:55	0	0	1	0	1	0	2	1
10:55	-	11:00	3	2	0	0	0	0	0	1
11:00	-	11:05	1	0	2	0	2	0	1	1
11:05	-	11:10	3	0	1	0	0	0	1	0
11:10	-	11:15	0	0	2	2	0	0	0	0
11:15	-	11:20	2	0	0	0	0	0	1	0
11:20	-	11:25	2	0	1	0	0	0	6	0
11:25	-	11:30	0	0	1	0	4	0	1	0
11:30	-	11:35	3	0	0	2	0	0	0	0
11:35	-	11:40	2	0	1	0	0	0	2	0
11:40	-	11:45	2	1	2	0	0	0	0	1
11:45	-	11:50	0	0	2	0	0	0	1	1
11:50	-	11:55	0	0	2	0	2	1	1	0
11:55	-	12:00	4	0	1	0	0	0	3	0
12:00	-	12:05	2	1	1	1	2	0	1	1
12:05	-	12:10	3	0	1	0	0	0	3	1
12:10	-	12:15	0	0	2	0	0	1	1	0
12:15	-	12:20	1	0	1	0	0	2	2	1
12:20	-	12:25	4	0	1	0	0	0	3	1
12:25	-	12:30	2	0	2	0	0	0	1	0
12:30	-	12:35	7	0	1	1	2	0	1	1
12:35	-	12:40	3	0	4	2	0	1	1	1
12:40	-	12:45	0	1	0	0	0	0	2	0
12:45	-	12:50	2	0	1	0	0	0	0	0
12:50	-	12:55	2	2	1	1	0	0	1	0
12:55	-	13:00	2	0	0	0	1	0	0	1
13:00	-	13:05	5	1	1	0	2	0	1	0
13:05	-	13:10	7	0	1	1	0	0	5	0
13:10	-	13:15	3	1	1	2	4	1	1	0
13:15	-	13:20	3	0	0	0	1	0	2	1
13:20	-	13:25	3	2	1	0	2	0	1	1
13:25	-	13:30	3	0	1	1	0	0	1	0
13:30	-	13:35	0	0	2	0	1	0	1	1
13:35	-	13:40	3	0	1	2	2	0	1	1
13:40	-	13:45	2	1	1	0	0	0	1	0
13:45	-	13:50	0	0	2	0	1	0	0	1
13:50	-	13:55	1	0	2	1	1	0	1	1

Survey Period			A - (North East) A595		B - Unnamed Road		C - (South West) A595		D - Blackwood Road	
			Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2
			MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX
13:55	-	14:00	4	0	0	0	0	0	1	1
14:00	-	14:05	1	0	1	0	0	0	0	0
14:05	-	14:10	3	0	1	0	0	0	2	1
14:10	-	14:15	3	0	1	2	0	0	3	0
14:15	-	14:20	2	0	0	0	0	0	1	1
14:20	-	14:25	0	0	1	0	0	0	1	1
14:25	-	14:30	4	2	1	1	1	0	2	2
14:30	-	14:35	4	0	4	0	0	0	1	1
14:35	-	14:40	4	0	2	0	0	0	3	0
14:40	-	14:45	0	0	1	0	0	0	2	0
14:45	-	14:50	4	0	2	0	0	0	2	2
14:50	-	14:55	1	0	2	0	4	0	1	2
14:55	-	15:00	2	0	0	0	0	0	2	1
15:00	-	15:05	2	0	2	0	2	0	1	1
15:05	-	15:10	2	0	3	1	1	0	2	0
15:10	-	15:15	3	0	1	1	0	0	2	1
15:15	-	15:20	3	0	5	1	1	0	1	0
15:20	-	15:25	3	0	3	0	0	0	1	1
15:25	-	15:30	3	1	3	1	0	2	3	1
15:30	-	15:35	6	0	3	1	0	0	3	1
15:35	-	15:40	4	0	2	1	0	0	3	2
15:40	-	15:45	3	0	3	1	0	0	2	1
15:45	-	15:50	5	0	2	1	2	0	2	1
15:50	-	15:55	4	0	7	1	1	0	2	1
15:55	-	16:00	4	1	1	2	1	0	3	2
16:00	-	16:05	2	0	2	1	2	1	2	1
16:05	-	16:10	2	0	2	2	7	0	6	1
16:10	-	16:15	6	1	4	1	0	0	5	1
16:15	-	16:20	4	0	4	2	4	1	4	1
16:20	-	16:25	5	1	1	1	11	0	11	4
16:25	-	16:30	6	0	3	2	0	0	4	2
16:30	-	16:35	10	2	4	2	2	0	3	2
16:35	-	16:40	2	1	1	3	0	0	9	2
16:40	-	16:45	2	0	1	3	0	0	7	1
16:45	-	16:50	3	1	1	2	1	0	3	1
16:50	-	16:55	5	1	2	2	0	0	1	0
16:55	-	17:00	6	0	1	0	0	0	2	2
17:00	-	17:05	4	0	2	6	3	0	4	2
17:05	-	17:10	1	0	2	1	2	0	4	1
17:10	-	17:15	5	1	1	2	1	0	4	1
17:15	-	17:20	1	0	1	2	3	0	2	0
17:20	-	17:25	2	0	0	1	0	0	1	1
17:25	-	17:30	2	0	1	1	1	0	1	0

Survey Period			A - (North East) A595		B - Unnamed Road		C - (South West) A595		D - Blackwood Road	
			Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2	Lane 1	Lane 2
			MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX
17:30	-	17:35	0	0	0	1	0	0	2	1
17:35	-	17:40	4	0	0	1	2	1	2	1
17:40	-	17:45	4	0	2	0	0	0	0	1
17:45	-	17:50	2	1	2	1	2	0	0	0
17:50	-	17:55	7	2	1	1	0	0	2	1
17:55	-	18:00	1	0	1	0	4	0	3	2
18:00	-	18:05	3	0	2	0	0	0	1	0
18:05	-	18:10	5	0	1	0	0	0	1	1
18:10	-	18:15	4	0	1	1	1	0	0	1
18:15	-	18:20	2	0	0	1	0	0	1	0
18:20	-	18:25	0	0	0	0	0	0	1	0
18:25	-	18:30	0	0	0	0	0	0	1	0
18:30	-	18:35	2	0	0	0	1	0	0	0
18:35	-	18:40	0	0	1	0	0	0	1	1
18:40	-	18:45	2	0	1	0	0	0	1	0
18:45	-	18:50	3	0	1	0	0	0	0	0
18:50	-	18:55	0	0	0	1	0	0	1	1
18:55	-	19:00	0	0	1	0	0	0	0	0