

Markwick Lane and Salt Lane ANPR Survey



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- Purpose:
 - To understand vehicle movements in the Loxhill/Hydestile area, specifically regarding HGV use and their journey times.
- Objectives:
 - What are the main routes that vehicles take in the Loxhill/Hydestile area
 - Quantify the number of daily vehicles using Markwick/Salt Lane
 - Quantify the number of daily HGV's using Markwick/Salt Lane
 - Use individual vehicle journey times to determine if HGV's have stopped along the route or have completed a 'through' trip
- Outcome:
 - To understand if any vehicle restrictions are required to reduce HGV 'through' trips

Automatic Number Plater Recognition (ANPR) surveys were carried out on Thurs 10th Dec 2020 to Wed 16th Dec 2020, 7am-7pm. The overall sample rate is 83% of vehicles, i.e. 83% of vehicles which travelled through the camera field of view were captured and are accounted for in the ANPR analysis.

Vehicle classification follows the COBA 7 class scheme which is predominantly used as standard in the UK. Useful information relating to these classes can be found in the following links. [COBA 7 Vehicle Categories.pdf](#) , [Lorry Types and Weights](#) , [Classification Scheme Examples](#) .

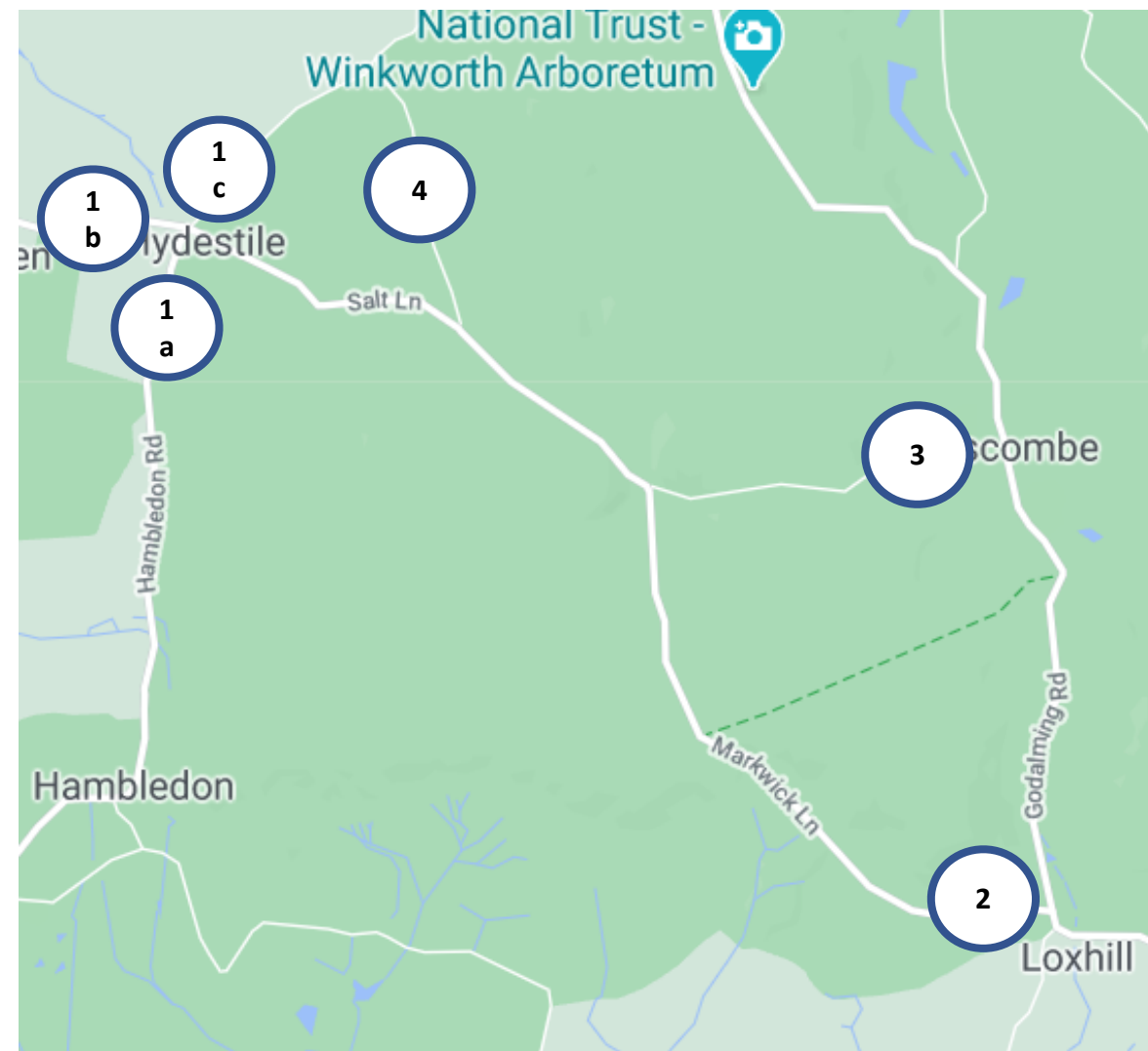
Origin Destination Vehicle Counts

7 Day Average Total Vehicle Count, 7am-7pm	01a	01b	01c	02	03	04	Total
01a	1	178	161	16	2	0	357
01b	123	2	151	218	2	1	497
01c	188	180	0	1	0	0	370
02	8	211	0	6	0	5	231
03	2	6	0	0	7	0	15
04	1	3	0	11	1	6	22
Total	322	579	313	252	12	14	1492

- On average across the 7 days, there were **509 vehicles** travelling along Markwick and/or Salt Lane. (The turning movements 1a-1c in dark grey have been subtracted from the total)
- The majority of these vehicles travelled between 1b and 2 in both directions.

Weekday Average Total Vehicle Count, 7am-7pm	01a	01b	01c	02	03	04	Total
01a	1	186	177	18	1	0	384
01b	127	2	166	239	2	1	538
01c	208	193	0	2	0	1	403
02	8	223	1	8	0	5	244
03	2	6	0	0	7	0	15
04	1	3	0	13	0	7	24
Total	346	613	345	280	10	14	1608

- On average across the weekdays, there were **547 vehicles** travelling along Markwick and/or Salt Lane. (The turning movements 1a-1c in dark grey have been subtracted from the total)
- Weekday use is greater than weekend use, with 453 vehicles observed on Saturday and 371 vehicles observed on Sunday.
- The majority of these vehicles travelled between 1b and 2 in both directions.

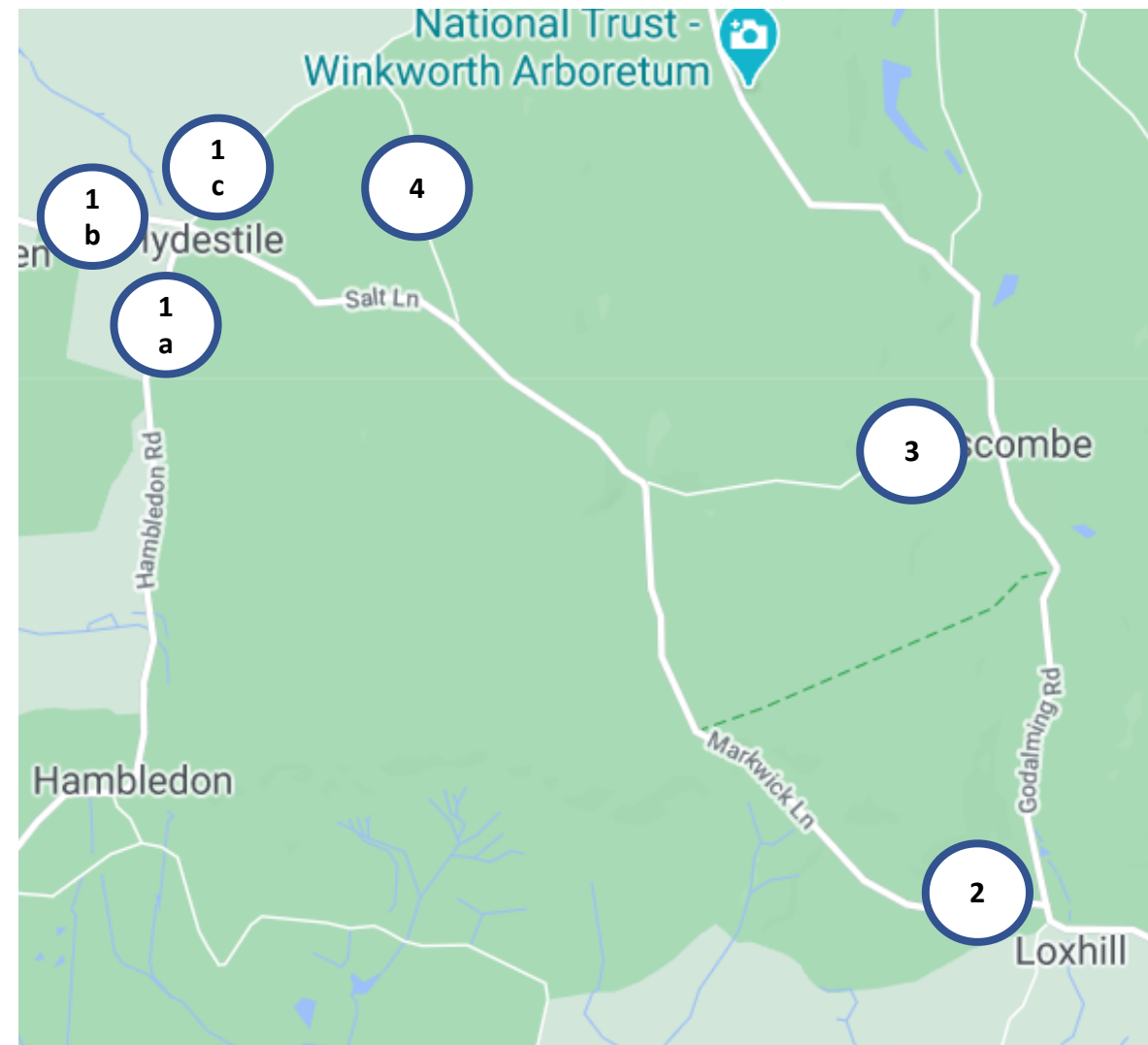


HGV (OGV1 and OGV2) Origin Destination Counts

7 Day Total HGV's	01a	01b	01c	02	03	04	Total
01a				3	0	0	3
01b				14	0	1	15
01c				0	0	0	0
02	2	12	0	1	0	2	17
03	0	3	0	0	4	0	7
04	0	0	0	4	0	0	4
Total	2	15	0	22	4	3	46

- Over the 7 days, there were a total of **46 HGV** movements within the cordon, mainly using Markwick and/or Salt Lane.
- Over the 7 days, HGV movements made up **1.29%** of all vehicles.
- All these vehicles are OGV1, except for 2 which were OGV2 from point 4 to 2.

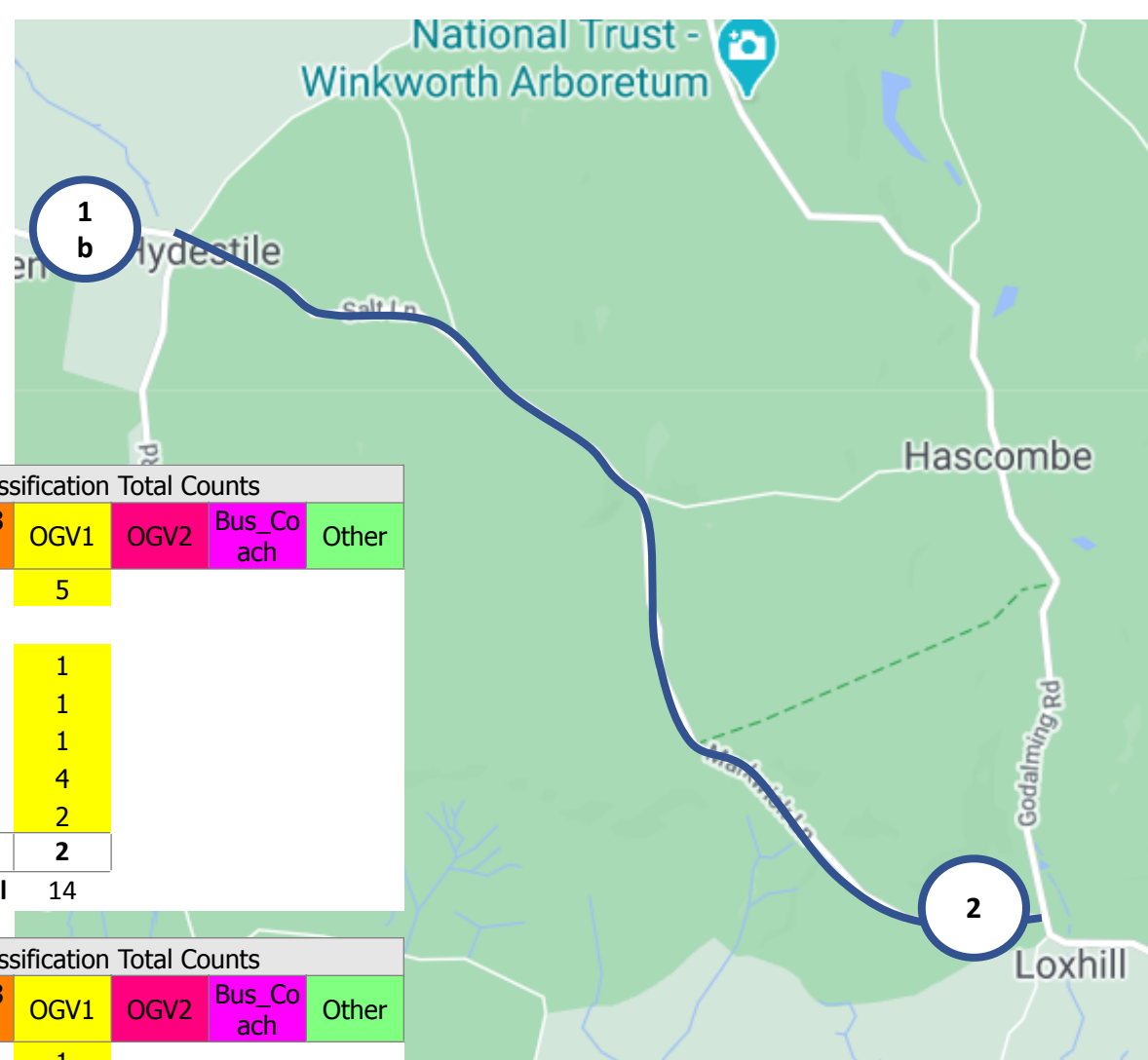
Weekday Average Total Vehicle Count, 7am-7pm	01a	01b	01c	02	03	04	Total
01a				1	0	0	1
01b				2	0	0	2
01c				0	0	0	0
02	0	2	0	0	0	0	2
03	0	0	0	0	1	0	1
04	0	0	0	1	0	0	1
Total	0	2	0	4	1	0	6



- On average there were **6 HGV's** each weekday travelling within the cordon.
- The majority of these vehicles travelled between 1b and 2 in both directions.

Main Route Analysis

The tables below show vehicle count, classification and journey time information for the main route used.



1b to 2	Total Count	Min Tt (minutes)	Max Tt (minutes)	Mean Tt (minutes)	σ Tt (minutes)	Classification Total Counts					
						Car	LGV<3 .5T	OGV1	OGV2	Bus_Co ach	Other
Thu	216	4.90	7.00	6.31	0.46	177	34	5			
Fri	272	4.61	7.00	6.32	0.45	222	50				
Sat	174	4.97	6.99	6.22	0.49	154	19	1			
Sun	155	4.69	7.00	6.17	0.50	141	13	1			
Mon	248	4.72	7.00	6.28	0.46	192	55	1			
Tue	247	4.55	6.99	6.22	0.48	185	58	4			
Wed	213	4.72	6.97	6.17	0.47	160	51	2			
Average	218	4.74	6.99	6.24	0.47	176	40	2			
Total								14			

2 to 1b	Total Count	Min Tt (minutes)	Max Tt (minutes)	Mean Tt (minutes)	σ Tt (minutes)	Classification Total Counts					
						Car	LGV<3 .5T	OGV1	OGV2	Bus_Co ach	Other
Thu	196	4.58	6.99	6.34	0.46	141	54	1			
Fri	271	4.89	6.99	6.28	0.47	206	62	3			
Sat	204	4.77	6.99	6.16	0.48	178	26				
Sun	153	4.61	6.99	6.07	0.57	136	17				
Mon	216	4.36	7.00	6.22	0.52	153	61	2			
Tue	214	4.84	6.99	6.19	0.49	147	63	4			
Wed	220	4.44	7.00	6.19	0.50	163	55	2			
Average	211	4.64	6.99	6.21	0.50	161	48	2			
Total								12			

Main Route Analysis

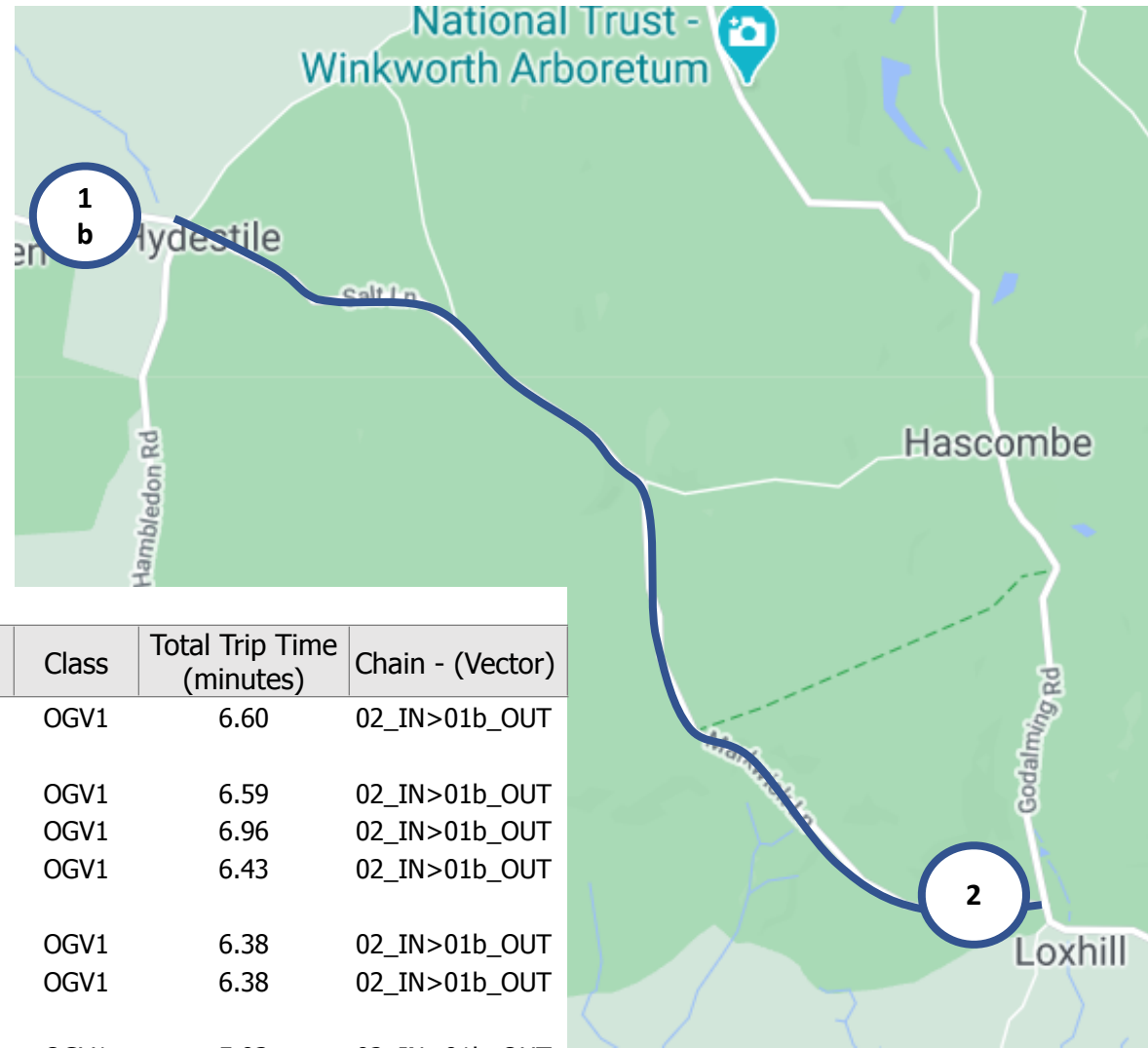
The tables below show the individual HGV movement information for the main route used. The journey times of the HGV's compared to the average of all vehicles is not significantly different. It is therefore reasonable to assume that these HGV's did not stop during their journey and can be classed as 'through' trips.

HGV Breakdown 1b to 2

Timestamp	Class	Total Trip Time (minutes)	Chain - (Vector)
10/12/2020 08:50:20	OGV1	6.53	01b_IN>02_OUT
10/12/2020 09:21:42	OGV1	6.04	01b_IN>02_OUT
10/12/2020 13:32:36	OGV1	6.86	01b_IN>02_OUT
10/12/2020 14:20:22	OGV1	6.36	01b_IN>02_OUT
10/12/2020 15:35:11	OGV1	6.78	01b_IN>02_OUT
12/12/2020 12:34:00	OGV1	5.62	01b_IN>02_OUT
13/12/2020 12:28:26	OGV1	5.97	01b_IN>02_OUT
14/12/2020 14:00:20	OGV1	6.75	01b_IN>02_OUT
15/12/2020 08:11:57	OGV1	6.84	01b_IN>02_OUT
15/12/2020 12:52:13	OGV1	5.92	01b_IN>02_OUT
15/12/2020 13:53:46	OGV1	5.75	01b_IN>02_OUT
15/12/2020 15:34:49	OGV1	6.48	01b_IN>02_OUT
16/12/2020 13:07:40	OGV1	6.44	01b_IN>02_OUT
16/12/2020 15:32:42	OGV1	6.30	01b_IN>02_OUT
HGV Average		6.33	
All Vehicles Average		6.24	

HGV Breakdown 2 to 1b

Timestamp	Class	Total Trip Time (minutes)	Chain - (Vector)
10/12/2020 15:26:29	OGV1	6.60	02_IN>01b_OUT
11/12/2020 12:25:43	OGV1	6.59	02_IN>01b_OUT
11/12/2020 15:19:35	OGV1	6.96	02_IN>01b_OUT
11/12/2020 15:31:38	OGV1	6.43	02_IN>01b_OUT
14/12/2020 07:39:40	OGV1	6.38	02_IN>01b_OUT
14/12/2020 15:21:26	OGV1	6.38	02_IN>01b_OUT
15/12/2020 10:21:28	OGV1	5.93	02_IN>01b_OUT
15/12/2020 11:13:21	OGV1	6.78	02_IN>01b_OUT
15/12/2020 11:56:52	OGV1	6.47	02_IN>01b_OUT
15/12/2020 15:26:45	OGV1	6.91	02_IN>01b_OUT
16/12/2020 14:24:14	OGV1	6.51	02_IN>01b_OUT
16/12/2020 14:28:22	OGV1	6.66	02_IN>01b_OUT
HGV Average		6.55	
All Vehicles Average		6.21	



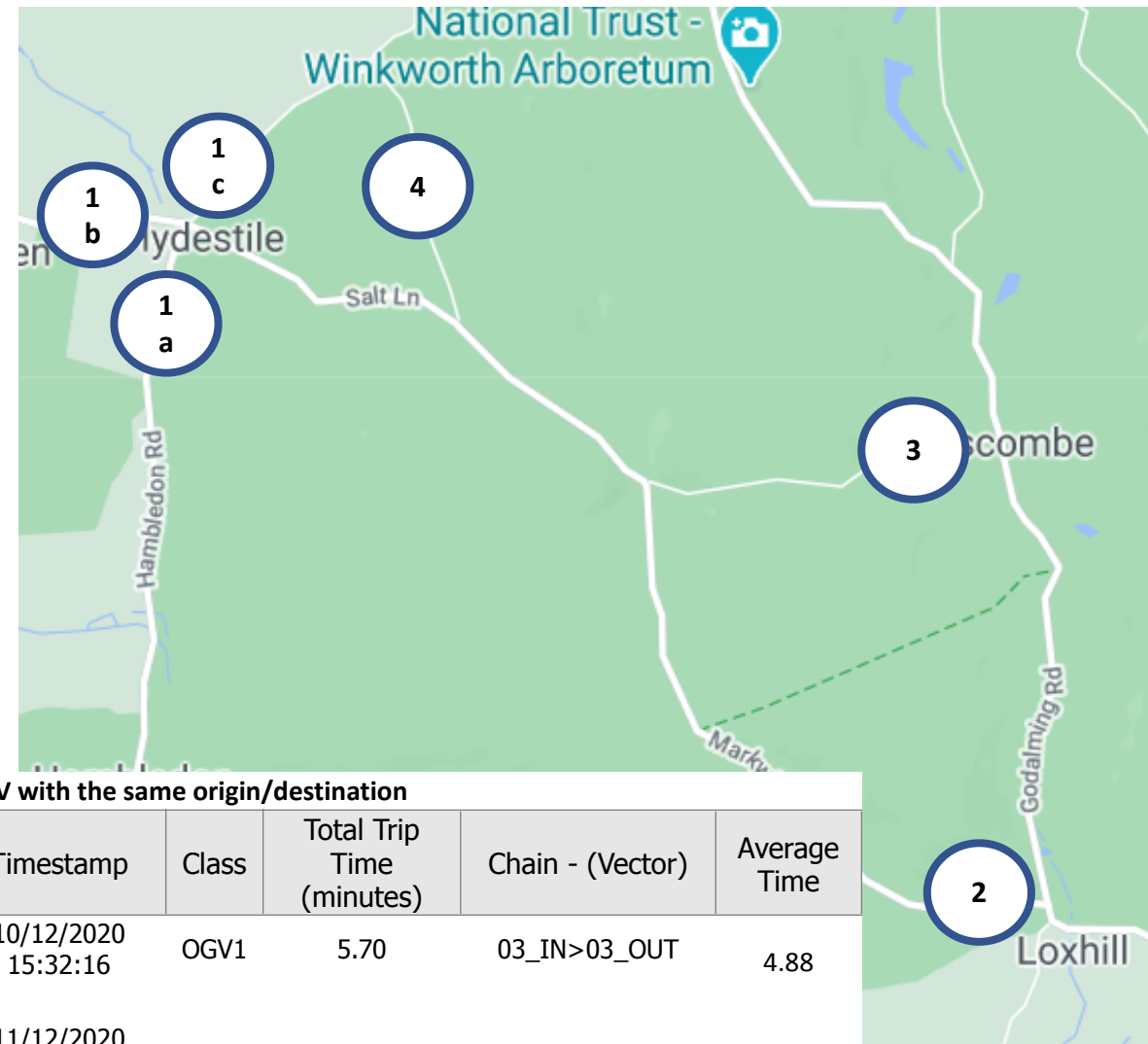
HGV's with the same Origin and Destination

HGV's that entered and exited from the same point are in grey in the table below. There were 5 of these and the individual trip information for them is in the second table.

7 Day Total HGV's	01a	01b	01c	02	03	04	Total
01a				3	0	0	3
01b				14	0	1	15
01c				0	0	0	0
02	2	12	0	1	0	2	17
03	0	3	0	0	4	0	7
04	0	0	0	4	0	0	4
Total	2	15	0	22	4	3	46

The table above is the same as seen on slide 4.

- The majority of HGV's entering and exiting from the same point occurred at point 3.
- All of these HGV trips took longer than the average of all vehicles entering and exiting point 3.
- It would be reasonable to assume that the increased time in conjunction with the residential properties near point 3, that these HGV's made a stop/delivery.
- The HGV that entered and exited via point 2 is less clear, the journey time is less than the average, so this could be a wrong turn.
- At least **5** out of the **46** HGV movements can be assumed to have made a stop or delivery, 11%. And 89% of HGV's were 'through' trips.



HGV with the same origin/destination

Timestamp	Class	Total Trip Time (minutes)	Chain - (Vector)	Average Time
10/12/2020 15:32:16	OGV1	5.70	03_IN>03_OUT	4.88
11/12/2020 14:00:01	OGV1	6.67	03_IN>03_OUT	3.37
14/12/2020 15:19:50	OGV1	4.62	03_IN>03_OUT	4.48
15/12/2020 12:46:44	OGV1	4.07	03_IN>03_OUT	3.44
16/12/2020 12:06:43	OGV1	1.33	02_IN>02_OUT	3.40