

A660 Otley Road HGV Count



REPORT OF HGV COUNT NO 4: JANUARY 2020

12/05/2020



A660 OTLEY ROAD HGV COUNT

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Zero Carbon Headingley and Headingley Development Trust
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Executive Summary

On 28th January 2020 volunteers undertook a 12 hour count of Heavy Goods Vehicles (HGVs) on the A660 in Headingley. The survey was the fourth in a series arranged by Zero Carbon Headingley (and previously Headingley Development Trust) in response to concerns at the increase in the number of HGVs, particularly large aggregate and roadstone trucks from the quarries in North Yorkshire, using the A660 as a short cut to the motorway network.

Over the 12 hour period from 6am to 6pm we observed **417** HGVs, 236 traveling towards the city centre and a further 181 travelling in the Lawnswood direction. Between 9am and 6pm there were 309 HGVs. This is 44% more than the 214 HGVs counted over the same period during our first HGV survey in January 2018, an alarming increase.

During the survey our volunteers made a specific count of the numbers of roadstone/aggregates HGVs on the route. Across the full 12 hour period there were 104 such vehicles – **1 in 4 of the HGVs counted**. We do not believe that these vehicles need to be travelling through the centre of Headingley and Hyde Park. It is a totally unsuitable road given the proximity of the shop frontages to the kerbside, the high volumes of pedestrians and cyclists, and the already poor air quality.

Diverting them on to more appropriate routes, principally the Outer Ring Road, could immediately reduce the volume of HGVs through Far Headingley, Headingley and Hyde Park Corner by around 25%.

Zero Carbon Headingley welcomes the imminent Clean Air Zone (CAZ) and its potential impact on air quality on the A660 but is concerned that this alone will not be sufficient to fully address the range of adverse impacts of HGVs travelling through the centre of Headingley. **We therefore call upon Leeds City Council to acknowledge that the A660 through Headingley is not an appropriate through-route for longer distance HGV traffic.**

With the installation of Automatic Number Plate Recognition (ANPR) cameras and associated software for the CAZ the technology is available to instigate a restriction on all HGV traffic except for local deliveries and vehicles whose journey starts or ends on the A660 between the Outer Ring Road and the Inner Ring Road, in a cost effective manner. **The opportunity to introduce it as part of a package of COVID-19 lockdown-easement measures designed to make walking and cycling more attractive should not be missed.**

To complement this we believe that there is also considerable scope for more sustainable forms of distribution for those remaining local deliveries. **Zero Carbon Headingley is keen to work with Leeds CC, independent businesses and perhaps some of the bigger retailers in Headingley to consider alternative, greener, “final mile” deliveries distribution measures, either as part of a Zero Carbon Headingley initiative or as part of a wider Leeds CC initiative to look at more sustainable distribution options in a post COVID-19 world.** We look forward to receiving Leeds CC’s views on our report.

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Appendix B: 15 minute count data.

1. INTRODUCTION

1.1 Background

Counts of Heavy Goods Vehicles (HGVs) by Headingley residents in January and August 2018 had highlighted the extent of HGV traffic on the A660 and Headingley Development Trust (HDT) subsequently arranged for further counts to be undertaken in April 2019 and most recently, January 2020, on behalf of Zero Carbon Headingley (ZCH).

The initial counts were prompted by concerns that there appeared to be an increase in HGV traffic through Headingley, with many of these trucks carrying roadstone or aggregate. While it was recognised that some HGV traffic may be largely unavoidable, for example deliveries to the businesses operating out of Headingley Central (the former Arndale Centre), it appeared that many lorries were using Headingley as the shortest route to and from the M1 and M621.

The purpose of this fourth count was twofold: to get a better understanding of the volumes of these roadstone vehicles using the A660 through Headingley during the winter months and to compare total HGV movements with those recorded in the same month two years earlier.

Figure 1. Aggregate Lorry at North Lane Junction April 2019



1.2 The Count

This count was conducted in central Headingley on Tuesday 28th January 2020 between the hours of 06.00 and 18.00 by volunteers acting on behalf of HDT/ZCH. They were provided with a briefing pack which included vehicle identification charts to ensure a consistent approach to the counting.

Appendix A contains the briefing pack, count forms and identification chart. Vehicles that fall into the categories of Other Goods Vehicles (OGV) 1 and OGV 2 were included in the count. All other vehicle types including Light Goods Vehicles (LGVs) were excluded. The enumerators were also asked to identify the roadstone carrying vehicles separately.

Counts were grouped into 15 minute time periods and then summed for the hour. The counters were situated in central Headingley, between North Lane and Shaw Lane Junction and adjacent to Headingley Central¹.

Appendix B contains the full set of count results split by direction and in 15 minute segments.

Figure 2. Three Aggregates HGVs Amongst Traffic Queuing at North Lane Junction



¹ HDT and ZCH would like to thank the following volunteers who provided their time to conduct the HGV count: R Harkess, J Baker, A Acton, I Barraclough, P Silcock, J Fairley, B Holden, B Walton, P Leonard, H Seymour, A Beswick.

2. RESULTS

2.1 Overview

There were 417 HGV movements counted over the 12 hour period, 20% down on the 501 HGVs counted over the same period in April 2019. However we would expect there to be some degree of seasonality in the traffic levels and HGV volumes were significantly higher than when we previously conducted a HGV count in January (in 2018).

In January 2018 our count was undertaken over a shorter time period - between the hours of 09.00 and 18.00 - and recorded 214 vehicles. In January 2020, between the same times, we recorded 309 HGVs, a 44% increase.

As has been the pattern in all four counts that we have undertaken there were more vehicles travelling towards the city centre in the direction of the Inner Ring Road (IRR) than travelling away from the city centre and towards the Outer Ring Road (ORR) at Lawnswood.

Prior to 9am this situation was reversed with slightly more HGVs travelling outbound. As a number of them at this time of the day were empty aggregate lorries this is perhaps indicative of operators taking advantage of the relatively uncongested conditions on the A660 in that direction to route their journey back along the A660, compared to later in the day when congestion in Headingley makes other less-direct routes more attractive. A similar pattern was observed in April 2019 and August 2018.

Table 1 summarises the hourly counts in both directions, totalling 236 HGVs inbound and 181 outbound across the 12 hours of the count, with a peak of 77 vehicles in an hour (both directions combined) just before midday.

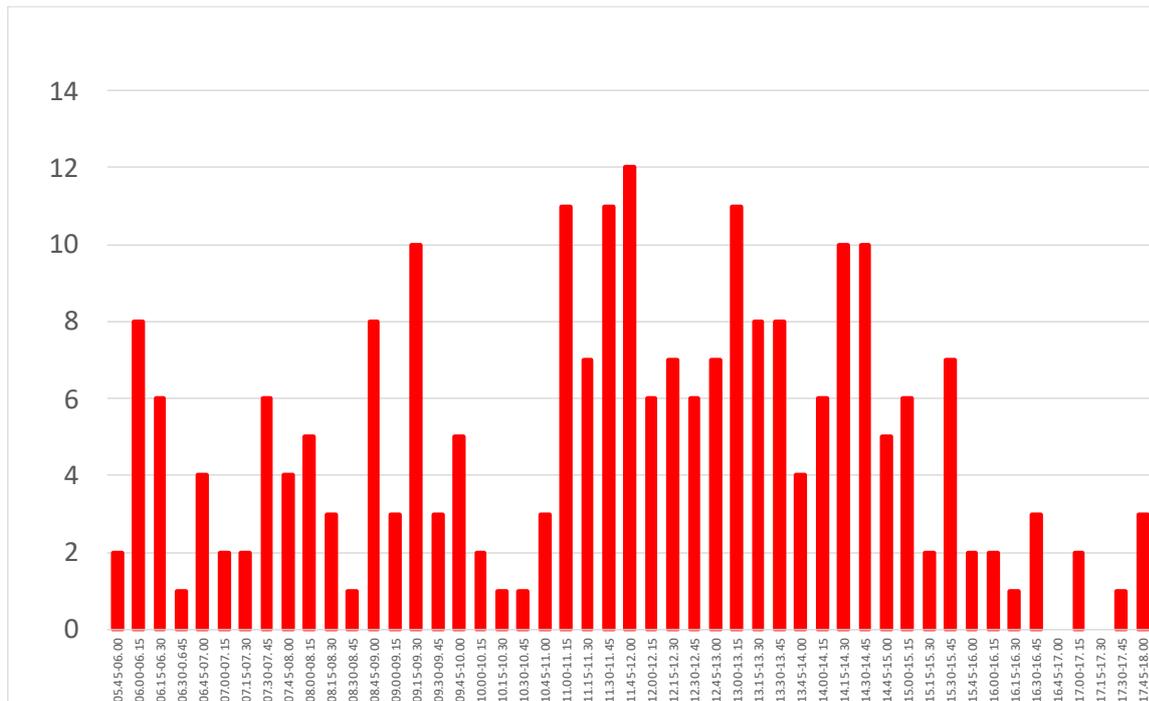
Table 1. Summary Hourly Counts

A660 HGV Count		28/01/2020	
	To city centre	To Lawnswood	
6.00-7.00	19	25	
7.00-8.00	14	18	
8.00-9.00	17	15	
9.00-10.00	21	13	
10.00-11.00	7	6	
11.00-12.00	41	36	
12.00-13.00	26	20	
13.00-14.00	31	25	
14.00-15.00	31	12	
15.00-16.00	17	9	
16.00-17.00	6	1	
17.00-18.00	6	1	
Total	236	181	

2.2 Detailed Analysis

Figures 2 to 4 break down the hourly totals into the 15 minute interval counts in each direction (Figures 2 and 3) and then into combined two-way flow (Figure 4)².

Figure 4. 15 Minute HGV Volumes – Towards City Centre

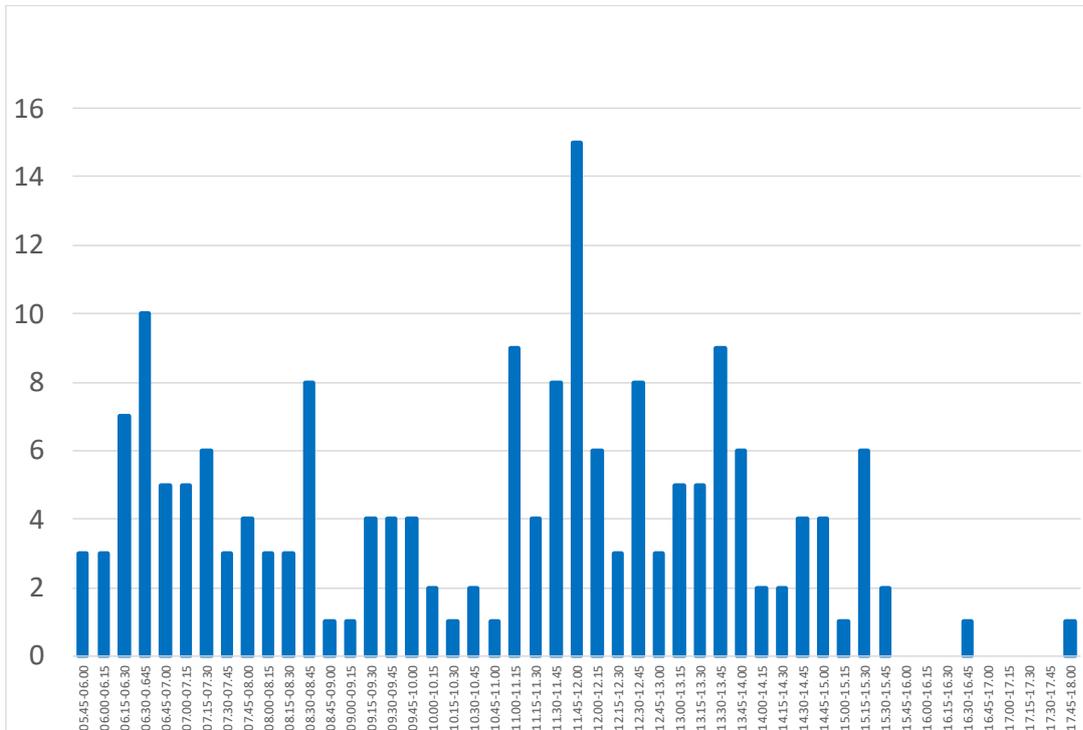


Inbound towards the city centre (Figure 2) it is noticeable that the distribution of HGV traffic across the day doesn't conform to the pattern for general traffic with little sign of distinct morning and evening peaks but with a noticeable spike in the late morning. Traffic begins early, with HGVs recorded between 05.45 and 06.00 prior to the start of the official count, and peaks in the middle of the day. Volumes finally begin to tail off sharply after 16.00 in the evening.

Outbound, shown in Figure 3 below, there is a slightly different pattern, with early morning HGV traffic exceeding the inbound direction up to 8am with the flow dropping off somewhat during the rest of the rush hour before building up to a peak of a vehicle every minute just before noon. As is the case of the city centre direction HGV traffic tails off sharply after 16.00.

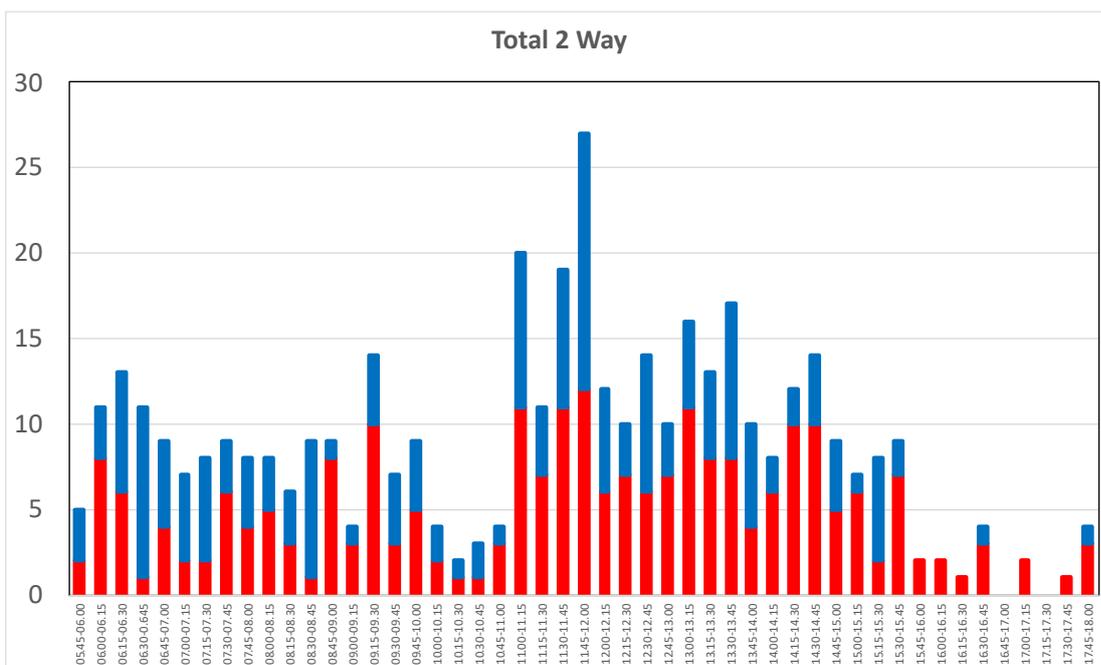
² Note that counting actually began at 05.45 and this additional 15 minutes is shown in the following figures and in the table in Appendix B

Figure 5. 15 Minute HGV Volumes – Away from City Centre



When the flows in each direction are combined, (shown in Figure 4, where red is inbound, blue outbound), it is apparent that for significant periods of the day there is an HGV vehicle passing through Headingley every minute (illustrated below as 15 or more HGVs counted in a 15 minute period).

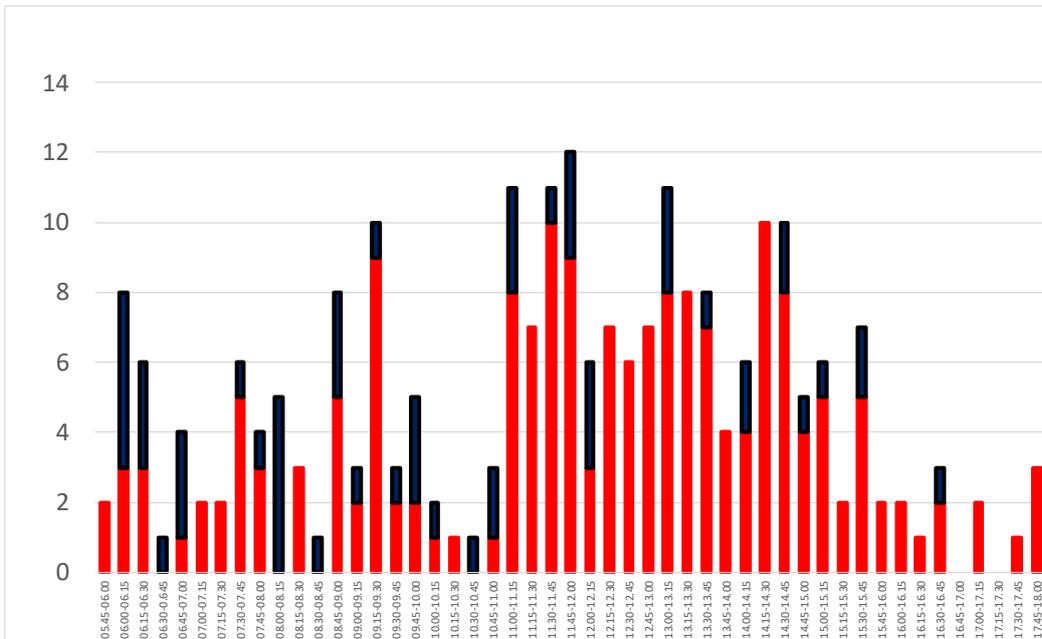
Figure 6. 15 Minute HGV Volumes – Two Way



2.3 Roadstone Lorries

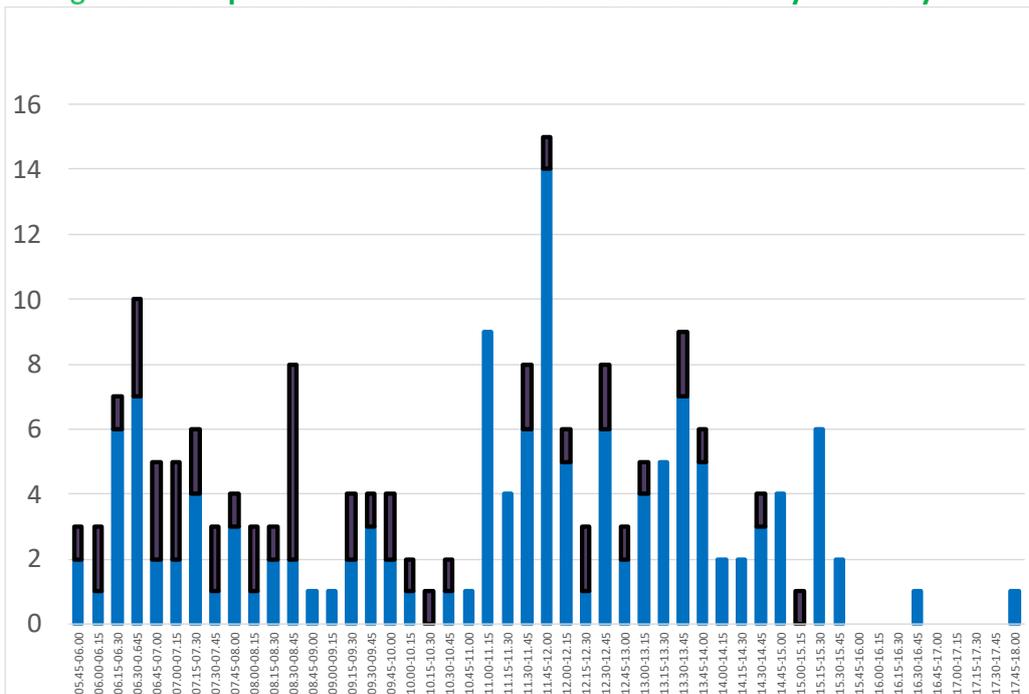
Surveyors were specifically tasked with identifying the proportion of HGV traffic that appeared to consist of aggregate or roadstone lorries. Figure 5 shows the numbers counted in-bound towards the city centre and Figure 6 those travelling outbound.

Figure 7. Proportion That Are Roadstone Lorries – Towards City Centre



[Roadstone vehicles shown in black in both Figure 5 and 6]

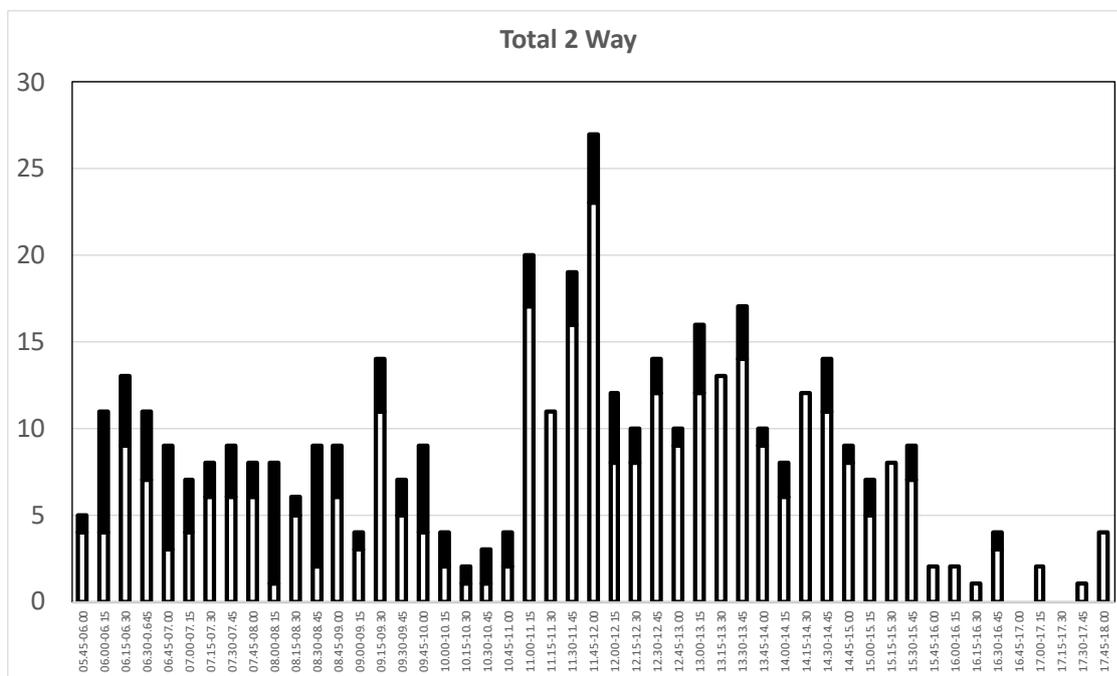
Figure 8. Proportion That Are Roadstone Lorries – Away from City Centre



In the early hours of the day, from the start of counting at 05.45 until 09.00, almost half of the HGVs traveling towards the city centre were roadstone vehicles (44%). Although we haven't surveyed them, anecdotal reports from residents living on the A660 state that these vehicles start to appear from before 5am. Throughout the rest of the day there is a steady flow of roadstone vehicles heading inbound and across the 12 hour survey period they made up 24% of the total.

In the reverse direction, towards Lawnswood, roadstone lorries also make up an identical proportion of the total HGV traffic prior to 09.00, (44%), before dropping off somewhat but nevertheless still accounting for an average of 27% of the total HGV traffic across the twelve hour period.

Figure 9. Proportion That Are Roadstone Lorries – Both Directions



[Roadstone vehicles shown in solid black]

3. IMPACTS

3.1 Street Environment

The A660 is one of the busier roads in Leeds, carrying just shy of 18,000 vehicles per day in 2018³. It is no surprise then that the environment for pedestrians and shoppers in the retail centre of Headingley is dominated by its passing traffic. As Figure 8 illustrates, the impact of HGVs passing a few metres away from the shop fronts is overwhelming.

Figure 10. Degraded Street Environment



3.2 Air Quality and Health Impacts

These traffic volumes have a direct impact on the air quality of central Headingley. Particulate matter, known as PM2.5 and PM10, suspended in the air results from (amongst other things) emissions from diesel and petrol engines, friction from brakes and tyres, and dust from road surfaces. Central Headingley has a particulate matter monitoring station and figures presented by Alex Sobel MP⁴ and updated by ZCH⁵ to include 2017-2019 show that it has recorded particulate levels exceeding World Health Organisation (WHO) guideline limits for PM2.5 every year since records began while PM10 levels exceeded the guidelines from 2012-2014 and remains at, or very close to the limits.

Diesel engines tend to produce much higher levels of particulate matter than equivalent petrol engines. HGVs are diesel powered and while they constitute a relatively small proportion of the traffic and the level of emissions will vary significantly from vehicle to vehicle, as we have shown earlier **many of these HGVs have no need to be in central Headingley and are adding to what is already a significant health risk to local residents.**

³ <https://roadtraffic.dft.gov.uk/manualcountpoints/17374>

⁴ <https://alexsobel.co.uk/wp-content/uploads/2018/02/Submission-for-CAZ.pdf>

⁵ https://www.airqualityengland.co.uk/site/exceedence?site_id=LED6

3.3 Cyclists

By far the most effective way to reduce pollution caused by vehicles is to encourage alternative modes of transport, such as cycling. The A660 is the busiest road for cycling in Leeds. Official Department for Transport figures⁶ show that the number of cyclists almost doubled from 634 per day in 2008 to over 1,200 in 2012, (although in the most recent estimate in 2018 this has dropped back slightly to 1,019).

Figure 11. Challenging Cycling Conditions – A660 Approaching Hyde Park Corner



It retains its position as being the most heavily cycled road in Leeds, despite the fact that provision for cyclists is extremely limited. There is no physical separation from the general traffic provided for cyclists and even where advisory cycle lanes are provided they disappear at some of the places where they are most needed, in front of Headingley Central between Shaw Lane and North Lane and on the approach to Hyde Park Corner from Headingley Hill for example (Figures 9 and 10).

This makes cycling on the A660 particularly challenging and off-putting to those who might be considering cycling. The presence of large, often fast moving, HGVs is especially intimidating for cyclists.

Figure 12. Cyclist and HGV – A660 at Headingley Hill



It is no surprise therefore that as well as being the busiest road for cyclists in Leeds **the A660 is also the most dangerous road for cyclists.**

Figures obtained by the Yorkshire Evening Post from a Freedom of Information request in 2017 showed that there were 182 accidents involving a cyclist on the A660 in a five year period between 2012 and 2017, 28 of them classified as Serious⁷.

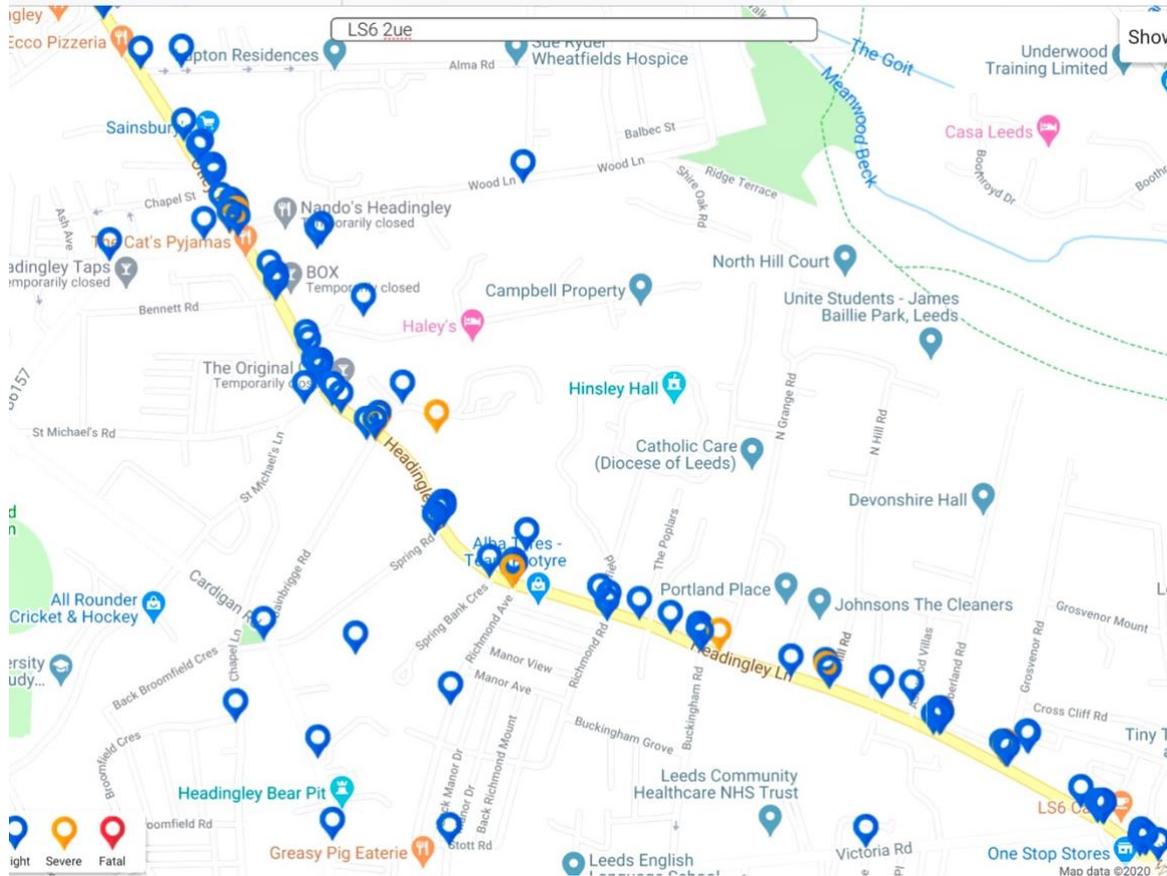
Analysis by THINK!, the government's road safety campaign, of cycling accident statistics⁸ on the section of the A660 between Headingley Central and Hyde Park Corner between 2012 and 2018 (shown in Figure 11 below) indicate the distribution of these accidents.

⁶ Earlier reference

⁷ <https://www.yorkshireeveningpost.co.uk/news/transport/what-its-cycle-along-most-dangerous-road-leeds-and-how-it-can-be-improved-1848839>

⁸ <https://thinkmap.roadsafetyanalysis.org/>

Figure 13. A660 Cycling Accidents Between Shaw Lane and Hyde Park Road 2012-2018



Although it is not clear from the figures how many, if any, of these accidents involved HGVs there is well documented evidence from London and elsewhere that HGVs and cycles do not mix well and that when there are collisions between them these rarely end well for the cyclist.

4. POTENTIAL ACTIONS

4.1 Clean Air Zone

Prior to the COVID-19 pandemic the Leeds City Council Clean Air Zone (CAZ) was expected to begin operation during Autumn 2020. The Outer Ring Road (ORR) and the M621 will form the boundaries of the scheme, inside of which HGVs, buses, coaches, taxis and private hire vehicles which don't meet minimum engine emission standards will be charged for travelling through the area. The A660 inside of the ORR, from the Lawnswood roundabout will be within the CAZ.

Zero Carbon Headingley welcomes the CAZ initiative, which should have a positive impact on HGVs in Headingley. Modelling⁹ by Leeds City Council has indicated that it should reduce the number of HGVs travelling on the A660, with some vehicles being diverted to the ORR.

Nevertheless it is important to note that the CAZ has some limitations. It does not ban vehicles, but charges them if they choose to travel within it. It only affects the most polluting vehicles and the proposed charges for the non-compliant HGVs were reduced from £100/day to £50/day following the initial consultation on the CAZ¹⁰. HGVs with the cleanest engines or operators of non-compliant vehicles who choose to pay the charge will still be able to use the A660. Between 74% and 90% of the local HGV fleet are assumed to be compliant by 2022 in LCC modelling for example (previous ref).

Zero Carbon Headingley welcomes the proposed Clean Air Zone and its potential impact on air quality on the A660 but is concerned that this alone will not be sufficient to fully address the adverse impacts of HGVs travelling through the centre of Headingley.

Thus, while the CAZ should have a welcome impact on the air quality in Headingley from HGVs and other non-compliant vehicles it may not necessarily have as much impact on the *volumes* of HGV traffic, particularly if operators react to the new charge by upgrading their fleet over time to ensure that they are compliant with emissions standards. The other benefits of any reduction in HGV traffic (of safety, noise, vibration etc to pedestrians, cyclists, shoppers and residents) could therefore be short term with volumes returning to current levels within a few years.

Our survey has identified that around 1 in 4 of all of the HGVs using the A660 in January 2020 were carrying roadstone/ aggregates from the quarries of North Yorkshire, or were travelling back empty to the quarries. It is our belief that none of this traffic is destined for Headingley, indeed we would be surprised if any of it is bound for central Leeds¹¹ as the majority will be heading for the national motorway network. It is using the highly unsuitable Otley Road/Headingley Lane route in order to save a few minutes journey time, as evidenced by the higher numbers using this route when traffic congestion is lightest. This is not acceptable when a much higher standard route, more suitable for HGVs, exists in the form of the Outer Ring Road A1620 and A6110 to Junction 1 of the M621.

⁹ <https://www.leeds.gov.uk/docs/Appendix%20SC8%20-%20Transport%20Modelling%20incl%20Apps%20a%20to%20j.pdf>

¹⁰ <https://www.leeds.gov.uk/docs/Clean%20Air%20Charging%20Zone%20FAQs.pdf>

¹¹ We have asked Leeds City Council for information on the origin and destination of HGV traffic on the A660 but have been advised that they do not currently have access to such data, although we note that their modelling of the CAZ impacts will implicitly contain some form of origin-destination information within its traffic matrices..



This route will become the default route for many vehicles avoiding the CAZ zone in future and there is now a unique opportunity to direct all HGVs that do not have a destination (or origin) within the Headingley / Hyde Park area between the ORR and the IRR to use the ORR instead bringing immediate benefit to pedestrians, cyclists and shoppers in central Headingley in addition to the air quality benefits that the CAZ seeks to deliver.

Zero Carbon Headingley ask Leeds City Council to acknowledge that the A660 through Headingley is not an appropriate through route for longer distance HGV traffic¹² and to instigate a restriction on all HGV traffic except for local deliveries and vehicles whose journey starts or ends on the A660 between the ORR and the IRR.

With the installation of Automatic Number Plate Recognition (ANPR) cameras and associated software for the CAZ the technology is available to introduce this restriction in a cost effective manner and **the opportunity to introduce it as part of a package of COVID-19 lockdown-easement measures that make walking and cycling more attractive should not be missed.**

4.2 'Greener' Local Distribution?

Some HGVs arguably 'need' to be in central Headingley – distributors to local supermarkets for example. However, the size of vehicle making these deliveries has to a large extent been determined by the logistics and distribution industries which have increasingly focused on the savings to be gained from using larger vehicles.

Zero Carbon Headingley is keen to explore whether there is scope to work with independent businesses and perhaps some of the bigger retailers in Headingley to consider alternative, greener distribution measures, possibly as part of a Zero Carbon Headingley initiative or as part of wider Leeds CC initiatives to look at more sustainable distribution options in a post COVID-19 world.

We would welcome Leeds CC views on this.

¹² That the A660 is not a strategic route is shown by Leeds City Council surveys which show that only 10% of all traffic on the route originates from outside of the city boundaries

Appendix A

Briefing Note, Count Sheet and HGV Vehicle Classification Charts

Headingley Development Trust

Otley Road A660 HGV Traffic Count

Tuesday 28th January 2020

Purpose

Thank you very much for volunteering to help HDT with this count today. The purpose of the count is to see how many HGVs are travelling through Headingley. This will enable us to continue our dialogue with Leeds CC on solutions to the pollution, noise, air quality, damage to the road, danger to pedestrians and cyclists and general nuisance that arises.

What to count

We are only counting HGVs. A chart to help identify what the Department of Transport (DfT) categorises as an HGV is attached. Confusingly, HGVs are referred to us as OGVs (Other Good Vehicles). We are interested in the categories OGV1 and OGV2 on the chart at the back of this document.

We are **counting in both directions** – in-bound towards the city centre and out-bound towards the Lawnswood Ring Road roundabout.

As was the case in our April 2019 survey we are particularly interested in establishing how many of the HGVs are the large vehicles carrying road stone/ aggregates to/from the quarries north of Leeds as we believe these are using the A660 as a short-cut to/from the motorway network and that they have increased significantly in recent times.

Tarmac, Hanson, Websters, RJ Howard and Longthorne's are amongst the regular operators, but anything that looks like one of the vehicles below should be included within this sub-category. They often have a sign saying Motorway Maintenance or Highway Maintenance on the back of the truck.



Where and how to count

Ideally the count should be undertaken on the A660 somewhere between North Lane junction and Shaw Lane. If anyone lives directly on the A660 you are welcome to count from your front garden or similar. **Please make a note of where you were located in the appropriate box on the count form.**

Most importantly, make sure that is somewhere safe. Do not stand near the carriageway.

You are more likely to be able to count accurately if you are warm, comfortable and relaxed, so sat down in a café window seat is a good idea. ***Café Nero is a recommended spot with excellent visibility from the window bench seats.*** Just remember that we need to count both directions so don't sit somewhere where your view of the opposite direction might be obscured by a bus picking up passengers or a delivery van loading or unloading.

We are asking people to count for 1 hour, split into 15 minute segments. We would be grateful if you could make a manual tally and record it, so that we retain the 'evidence' for our discussions with Leeds CC.

The most accurate way to do this is to count in groups of 5, noting the first four HGVs with vertical marks on the count form then crossing them for the 5th like so; 

Then repeat for the next 5. And so on

The count form will ask you to **note your start time** and also to sum the 15 minute counts for both directions at the end of the hour.

A660 HGV Count Form

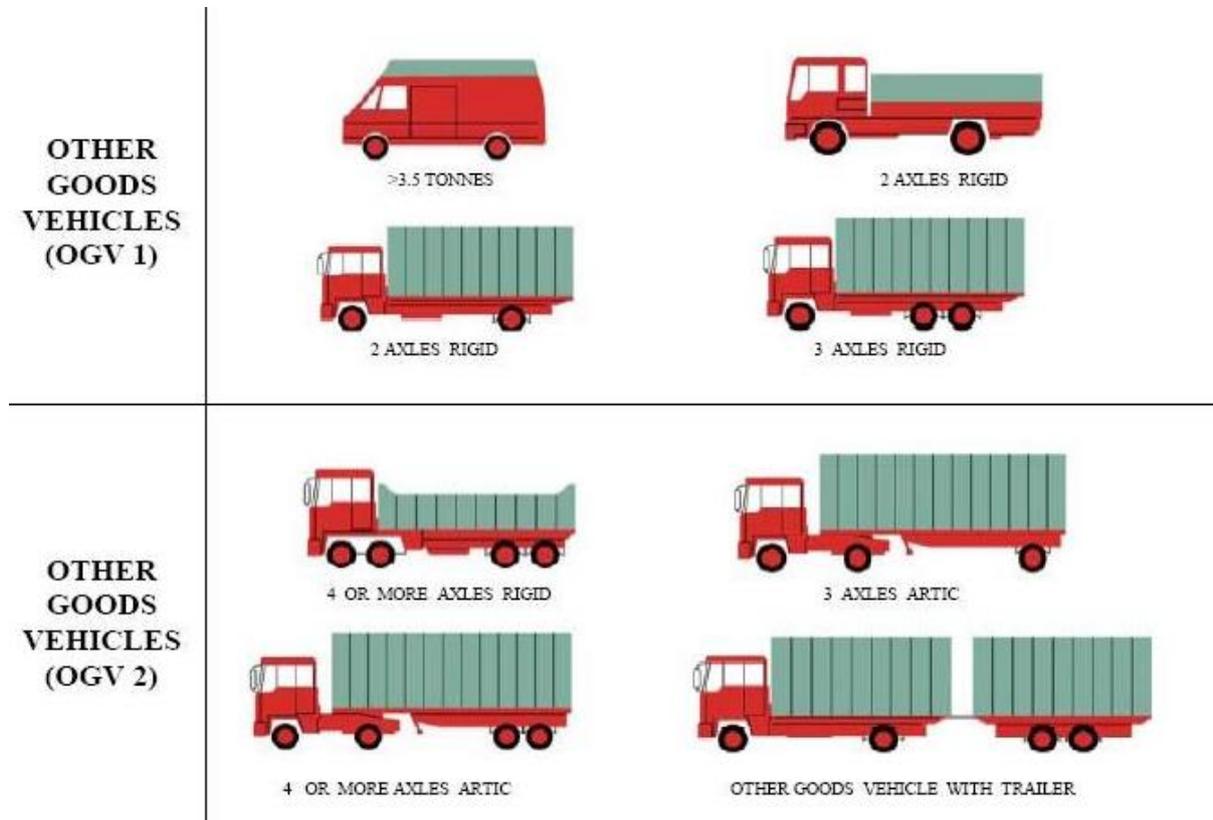
Date: 28/01/2020

Location:	Start Time: hr
Surveyor (initials):	

	Direction			
	Towards City Centre		Towards Lawnswood	
Time slot	ALL HGVs		ALL HGVs	
		Of which.... are 'Roadstone' HGVs		Of which....are 'Roadstone' HGVs
xx.00				
xx.15				
xx.30				

xx.45				
1 Hr total				

Vehicle Classification Guide for HDT HGV Survey



Please don't count vans or Council bin wagons

You will see from the diagram above some large vans are counted as HGV's (OGV1) if they are over 3.5 tonnes and have twin tyres at the back. We are not really interested in vans for this survey so ignore them and don't include them in your count.

Similarly, you will probably see a number of Leeds City Council bin wagons. Again, please ignore them for this count.

Appendix B

15 Minute Counts: 05.45 to 18.00 28th January 2020

Total				Roadstone Lorries only			
A660 HGV Count	28/01/2020			A660 HGV Count	28/01/2020		
	To city centre	To Lawnswood	Total 2-Way		To city centre	To Lawnswood	Total 2-Way
05.45-06.00	2	3	5	05.45-06.00	0	1	1
06.00-06.15	8	3	11	06.00-06.15	5	2	7
06.15-06.30	6	7	13	06.15-06.30	3	1	4
06.30-0.645	1	10	11	06.30-0.645	1	3	4
06.45-07.00	4	5	9	06.45-07.00	3	3	6
07.00-07.15	2	5	7	07.00-07.15	0	3	3
07.15-07.30	2	6	8	07.15-07.30	0	2	2
07.30-07.45	6	3	9	07.30-07.45	1	2	3
07.45-08.00	4	4	8	07.45-08.00	1	1	2
08.00-08.15	5	3	8	08.00-08.15	5	2	7
08.15-08.30	3	3	6	08.15-08.30	0	1	1
08.30-08.45	1	8	9	08.30-08.45	1	6	7
08.45-09.00	8	1	9	08.45-09.00	3	0	3
09.00-09.15	3	1	4	09.00-09.15	1	0	1
09.15-09.30	10	4	14	09.15-09.30	1	2	3
09.30-09.45	3	4	7	09.30-09.45	1	1	2
09.45-10.00	5	4	9	09.45-10.00	3	2	5
10.00-10.15	2	2	4	10.00-10.15	1	1	2
10.15-10.30	1	1	2	10.15-10.30	0	1	1
10.30-10.45	1	2	3	10.30-10.45	1	1	2
10.45-11.00	3	1	4	10.45-11.00	2	0	2
11.00-11.15	11	9	20	11.00-11.15	3	0	3
11.15-11.30	7	4	11	11.15-11.30	0	0	0
11.30-11.45	11	8	19	11.30-11.45	1	2	3
11.45-12.00	12	15	27	11.45-12.00	3	1	4
12.00-12.15	6	6	12	12.00-12.15	3	1	4
12.15-12.30	7	3	10	12.15-12.30	0	2	2
12.30-12.45	6	8	14	12.30-12.45	0	2	2
12.45-13.00	7	3	10	12.45-13.00	0	1	1
13.00-13.15	11	5	16	13.00-13.15	3	1	4
13.15-13.30	8	5	13	13.15-13.30	0	0	0
13.30-13.45	8	9	17	13.30-13.45	1	2	3
13.45-14.00	4	6	10	13.45-14.00	0	1	1
14.00-14.15	6	2	8	14.00-14.15	2	0	2
14.15-14.30	10	2	12	14.15-14.30	0	0	0
14.30-14.45	10	4	14	14.30-14.45	2	1	3
14.45-15.00	5	4	9	14.45-15.00	1	0	1
15.00-15.15	6	1	7	15.00-15.15	1	1	2
15.15-15.30	2	6	8	15.15-15.30	0	0	0
15.30-15.45	7	2	9	15.30-15.45	2	0	2
15.45-16.00	2	0	2	15.45-16.00	0	0	0
16.00-16.15	2	0	2	16.00-16.15	0	0	0
16.15-16.30	1	0	1	16.15-16.30	0	0	0
16.30-16.45	3	1	4	16.30-16.45	1	0	1
16.45-17.00	0	0	0	16.45-17.00	0	0	0
17.00-17.15	2	0	2	17.00-17.15	0	0	0
17.15-17.30	0	0	0	17.15-17.30	0	0	0
17.30-17.45	1	0	1	17.30-17.45	0	0	0
17.45-18.00	3	1	4	17.45-18.00	0	0	0
238	184	422		56	50	106	