



# Horn Crag Quarry, Bradford

**Transport Statement** 

December 2022

# HORN CRAG QUARRY BRADFORD

A D CALVERT

TRANSPORT STATEMENT

Report by: Daniel McLean

Bryan G Hall Consulting Civil & Transportation Planning Engineers Suite E15, Joseph's Well, Hanover Walk, Leeds, LS3 1AB

Ref: 21-207-002.02

December 2022

Report Reference No: 21-207-002.02

	Name	Signed	Date
Report prepared by	Daniel McLean		19.12.2022
Report checked by	Geoff Bowman		19.12.2022
Overview by	Martin Crabtree		19.12.2022

# **Distribution of Copies**

Revision	Electronic	Number of bound copies	Issued to	Date Issued
01	Υ	-	Client	14.12.2022
02	Υ	-	Submission	19.12.2022

# CONTENTS

1.0	INTRODUCTION	1
2.0	NATIONAL AND LOCAL POLICY	3
3.0	THE SITE AND THE HIGHWAY NETWORK	6
4.0	PROPOSED DEVELOPMENT	13
5.0	TRAFFIC GENERATION	15
6.0	THE IMPACT OF THE PROPOSED DEVELOPMENT	16
7.0	SUMMARY AND CONCLUSIONS	18

# **APPENDICES**

Appendix BGH1	Site Location Plan
Appendix BGH2	Pre-Application Advice and Previous Highways Responses
Appendix BGH3	Public Rights of Way
Appendix BGH4	ATC Location Plan
Appendix BGH5	ATC Survey Data
Appendix BGH6	Personal Injury Collision Data Study Area
Appendix BGH7	HGV Routing Plan

### 1.0 INTRODUCTION

- 1.1 This Transport Statement (TS) has been prepared by Bryan G Hall (BGH) to support a planning application by A.D. Calvert Architectural Stone Supplies Limited for a proposed dimension stone extraction site near Silsden in Bradford, West Yorkshire. The site has previously been quarried on an ad hoc basis.
- The site is bound by agricultural land in all directions. Access to the site is currently available from the Fishbeck Lane/Bolton Road junction but the section of Fishbeck Lane between the site and the Fishbeck Lane/Bolton Road junction is wholly unsuitable for HGV's. However, access is available for HGV's via the Fishbeck Lane/Brown Bank Lane junction. A plan showing the site location relative to the surrounding highway network is attached at Appendix BGH1.
- 1.3 The proposed development is for a dimension stone site, extracting block to be taken by road to A D Calvert's saw sheds in Leyburn. Access and egress will only be by way of the Fishbeck Lane/Brown Bank Lane junction and will be controlled by way of a routing plan that will be conditioned. There will be no associated HGV movements permitted through Silsden.
- 1.4 A planning application (application ref: 22/01170/MAF) was previously submitted for this scheme which was subsequently withdrawn on the 8<sup>th</sup> June 2022. This TS considers the pre-application advice and both Highways responses which were received as part of the previous application. The pre-application advice and both Highways responses are attached to this report at Appendix BGH2.
- 1.5 This TS assesses the transport implications of the proposal and all relevant matters raised by the pre-application enquiry. Following this introduction, the TS is set out into the following sections:
  - Section 2 sets out the relevant transport-related planning policies and guidance;
  - Section 3 provides a description of the existing site, the highway network and the public right of ways in the vicinity of the proposed development. This section also considers the road safety characteristics of the local highway network;
  - Section 4 describes the development proposals and describes the HGV routing plan;



Section 5 assesses the impact of the additional trips generated by the development and possible mitigation measures; and

Section 6 provides a summary of the report and sets out the conclusions which have been reached.



### 2.0 NATIONAL AND LOCAL POLICY

### National Planning Policy Framework

- 2.1 The National Planning Policy Framework (NPPF) sets out the government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development.
- 2.2 In relation to transport, the NPPF states at paragraph 105 that:-

'...significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health'.

2.3 It is noted in the NPPF that:-

"...opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making".

2.4 Paragraph 111 of the NPPF indicates that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be '...severe'.

### Planning Practice Guidance

- 2.5 The Government provides planning guidance in the Planning Practice Guidance (PPG) suite of documents. The PPG is updated as new thinking and policy objectives emerge and provides practical guidance on a number of relevant planning topics. The aim of the PPG (in conjunction with the NPPF) is to help simplify the planning system in England and replace a number of historic guidance notes.
- The updated PPG covers the topic of Transport in two sections, the first being 'Transport evidence bases in plan making and decision taking' with the second being 'Travel plans, transport assessments and statements'. The relevant guidance in relation to the preparation of this TA is summarised below.
- 2.7 Paragraph 2 of the latter Transport PPG indicates that:-

"... Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development in



order to promote sustainable development. They are required for all developments which generate significant amounts of movements".

2.8 Specifically, in relation to Transport Assessments and Travel Plans, paragraph 6 states that:-

"... Travel Plans, Transport Assessments and Statements can positively contribute to:-

encouraging sustainable travel;

lessening traffic generation and its detrimental impacts;

reducing carbon emissions and climate impacts;

creating accessible, connected, inclusive communities;

improving health outcomes and quality of life;

improving road safety; and

reducing the need for new development to increase existing road capacity or provide new roads.

They support national planning policy which sets out that planning should actively manage patterns of growth in order to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.'

### Local

The West Yorkshire Combined Authority's Transport Strategy 2040

2.9 The Transport Strategy 2040 sets out a vision and framework to deliver a world-class, modern, integrated transport system. The Transport Strategy has three high level objectives which are focused on the economy, the environment and people and place. A policy of particular importance within this document is the 'Work with the freight industry and other partners to improve freight movements and environmental performance'.

Local Plan for the Bradford District: Core Strategy Development Plan Document

- 2.10 The adopted Core Strategy forms part of the statutory Development Plan for the Bradford District. The document sets out the strategic planning framework and policies to guide development within the District up to 2030.
- 2.11 The document sets out several Transport policies, policies 'TR1: Travel Reduction and Modal Shift', 'TR2: Parking Policy', 'TR3: Public Transport, Cycling and Walking',



'TR5: Improving Connectivity and Accessibility' and 'TR6: Freight' are relevant to this development and this TS has been written with these policies in mind.



### 3.0 THE SITE AND THE HIGHWAY NETWORK

The Site

- 3.1 The site is located on land currently occupied by a historic quarry and is bound by farmland to all sides. There is a short unmetalled track which runs from the quarry itself in a southerly direction down to meet Fishbeck Lane.
- Access to the site is proposed to and from the eastern end of Fishbeck Lane. It is an unadopted rural road which runs between Bolton Road in the north west and Brown Bank Lane in the south east. Along its length, Fishbeck Lane has a metalled surface at its western end and provides access to some properties in the vicinity. It has no footway and is gated directly to the east of these properties. Further to the east, Fishbeck Lane is a unmetalled track some 3.0 3.4 metres in width and passes across a field which slopes gently the south. The quarry lies to the north and is served by another unmetalled track which runs to the north from Fishbeck Lane. Fishbeck Lane then runs in a north-south direction. There is another gate on Fishbeck Lane before it emerges onto Brown Bank Lane.
- 3.3 At its western end, Fishbeck Lane forms a priority junction with Bolton Road. The junction does not meet usual highways standards and Fishbeck Lane meets Bolton Road at an acute angle making manoeuvres in and out of Fishbeck Lane difficult. Due the proposed routing plan which will be discussed in more detail later, wagons from the proposed quarry will not use this junction to access or egress from the site.
- 3.4 The site is also crossed by two Public Rights of Way (PRoW's) which are shown on the plan attached at Appendix BGH3. They are Footpath Silsden 18 and Footpath Silsden 19.
- 3.5 Footpath Silsden 18 currently crosses the site, travelling from south to north. It is not currently possible to walk along the footpath as it currently leads up a vertical quarry face.
- 3.6 Footpath Silsden 19 runs along an approximate east to west direction and passes over the track leading from the quarry. On site observations revealed that the route of Footpath Silsden 19 is not clear and this section of Footpath Silsden 19 is not signed. It is unclear if there is an error on the online definitive map or if the footpath is incorrectly signed on site.
- 3.7 Details of the proposed diversion of these footpaths and improvements to the signage is provided in Paras 4.9 to 4.12.



The Local Highway Network

Fishbeck Lane/Brown Bank Lane Junction

- 3.8 At its eastern end, Fishbeck Lane emerges onto Brown Bank Lane, which is a rural, single carriageway road that runs in a general north-east to south-west direction and is maintained by the local Highway Authority.
- 3.9 In the vicinity of the junction, Brown Bank Lane is 6.0 metres in width and is bordered by verges and drystone walls to both sides of the carriageway. The centre of the carriageway is marked out by a centreline marking.
- 3.10 Brown Bank Lane is subject to the national speed limit of 60 mph. However, it is a rural, historic road which is very lightly trafficked and it is typical of many rural roads in the vicinity of the site. It may be that Brown Bank Lane only has a 60 mph speed limit as it is impractical for local Highway Authority to implement more appropriate speed limits in a rural area such as this, when actual speeds are very much less than 60 mph (see Para's 3.13 to 3.18). It is therefore unrealistic to expect that the visibility splays associated with a 60 mph speed limit can or should be provided in this location.
- 3.11 Drivers are generally aware of the nature of the local road network and generally drive accordingly. This is confirmed by the lack of collisions in the vicinity and hence it is clear that the junction and Brown Bank Lane itself operates safely at present.
- As part of the previous application, it was determined that the maximum achievable visibility splay to the left for vehicles emerging from Fishbeck Lane is 2.4 metres by 47.0 metres as it is constrained by the brow of the hill. This is appropriate for vehicle speeds of up to 31mph. With regards to visibility to the right from Fishbeck Lane, visibility in excess of 2.4 metres by 100.0 metres can be achieved which is sufficient for traffic speeds in excess of 52 mph. These visibility splays were measured on site.
- 3.13 Highways have requested that speed surveys are carried out in order to understand vehicle speeds on Brown Bank Lane and to determine if the achievable visibility splays are sufficient. Therefore, two 7-day ATC surveys were placed at the end of the visibility splays stated in the previous paragraph. These locations are shown on the ATC location plan at Appendix BGH4 (ATC 1 and ATC 2) and have been agreed with Highways.
- 3.14 The ATC surveys on Brown Bank Lane were collecting data from the 13<sup>th</sup> July 2022 to the 19<sup>th</sup> July 2022. The raw ATC survey data is attached at Appendix BGH5. Table 3.1 sets out the 85<sup>th</sup> percentile speeds for both ATC 1 and ATC 2. The survey was conducted in dry conditions on each day.



Table 3.1: ATC Survey 85<sup>th</sup> Percentile Speeds

	ATC 1		ATC 2	
Date	NE Bound (mph)	SW Bound (mph)	NE Bound (mph)	SW Bound (mph)
13/07/2022	37.1	35.2	31.1	30.5
14/07/2022	37.2	35.2	30.5	30.5
15/07/2022	37.7	35.2	30.6	30.7
16/07/2022	36.8	34.6	30.6	29.9
17/07/2022	36.7	34.3	29.6	29.6
18/07/2022	38.6	36.2	31.0	30.6
19/07/2022	37.7	36.3	31.3	31.2
Average	37.4	35.3	30.7	30.4

3.15 Highways have requested that 85<sup>th</sup> percentile wet weather speeds are used to determine the visibility splays. As the surveys were conducted in dry conditions, it is necessary to convert the dry weather recorded speeds to wet weather speeds. Paragraph 3.4 of the now superseded Design Manual for Roads and Bridges document TA 22/81 sets out that 4kph (2.5mph) should be deducted from the surveyed dry weather spot speeds to obtain wet weather speeds. Therefore, 2.5mph has been deducted from the surveyed results and the wet weather adjusted 85<sup>th</sup> Percentile speeds are detailed in Table 3.2.



Table 3.2: ATC Survey 85<sup>th</sup> Percentile Speeds

	ATC 1		ATC 2	
Date	NE Bound (mph)	SW Bound (mph)	NE Bound (mph)	SW Bound (mph)
13/07/2022	34.6	32.7	28.6	28.0
14/07/2022	34.7	32.7	28.0	28.0
15/07/2022	35.2	32.7	28.1	28.2
16/07/2022	34.3	32.1	28.1	27.4
17/07/2022	34.2	31.8	27.1	27.1
18/07/2022	36.1	33.7	28.5	28.1
19/07/2022	35.2	33.8	28.8	28.7
Average	34.9	32.8	28.2	27.9

- 3.16 To determine if the achievable visibility splays are sufficient, Highways have requested that the 85<sup>th</sup> percentile speeds are used from the highest recorded day.
- 3.17 With regards to visibility to the left, it is most appropriate to use the value associated with south-west bound travelling vehicles travelling over ATC 2. The highest daily 85<sup>th</sup> percentile speed was 28.7mph, which was recorded on the 19<sup>th</sup> July 2022. This demonstrates that the achievable visibility splay of 2.4 metres by 47.0 metres is sufficient as this is appropriate for vehicle speeds of up to 31mph.
- 3.18 With regards to visibility to the right, it is most appropriate to use the value associated with north-east bound travelling vehicles travelling over ATC 1. The highest daily 85<sup>th</sup> percentile speed was 36.1mph, which was recorded on the 18<sup>th</sup> July 2022. Once again, this demonstrates that the achievable visibility splay of in excess of 2.4 metres by 100.0 metres is sufficient as this is appropriate for traffic speeds in excess of 52 mph.
- 3.19 In addition, Highways always requested that a survey is undertaken on Fishbeck Lane to understand the existing daily vehicular movements. A third ATC (ATC 3) was placed in the mouth of the Fishbeck Lane/Brown Bank Lane junction. This ATC was



collecting data on the 13<sup>th</sup> and 14<sup>th</sup> of July 2022. Across the two surveyed days, an average of 9 vehicles travelled along Fishbeck Lane in a northbound direction and an average of 5 vehicles travelled along Fishbeck Lane in a southbound direction. Clearly, the number of existing trips is extremely low.

#### Brown Bank Lane

- 3.20 Brown Bank Lane runs in a general north-east to south-west direction. To the east of the junction, Brown Bank Lane runs up hill to the A65. Along its route, Brown Bank Lane has frequent bends, is subject to the National Speed Limit and has a variable gradient. The road provides a connection from Silsden, past the Brown Bank Holiday Park which is located approximately 600 metres to the north east of the Fishbeck Lane/Brown Bank Lane junction and further north to Addingham.
- 3.21 Brown Bank Lane runs approximately 850 metres to the south-west of the junction with Fishbeck Lane to meet A6034 Bolton Road and North Street at a priority staggered junction. A6034 Bolton Road has priority through the junction and is subject to a 30 mph speed limit. A6034 Bolton Road has a carriageway width of 8.9 metres and a footway on its western side of 1.9 metres. Brown Bank Lane has a carriageway width of 6 metres immediately on the approach to the junction. Brown Bank Lane has an uphill gradient of 12% running from the junction to the east. However, the gradient of Brown Bank Lane reduces significantly on approach to this junction. There are 'SLOW' road markings in place along Brown Bank Lane on the approach to the junction.
- 3.22 The centreline of A6034 Bolton Road is marked by continuous double white lines from the centre of the junction which merge into markings for the approach to a central traffic island. To the south of the junction, the double white lines continue and a continuous white line is provided on the west side of the carriageway to prevent overtaking on the approach to the junction by northbound vehicles. There is a solid white "STOP" line on North Street in order to assist drivers emerging onto Bolton Road.
- 3.23 The visibility to the left for vehicles emerging from Brown Bank Lane junction is in excess of the required 2.4 metres by 43.0 metres for a road that has a 30 mph speed limit.
- 3.24 The visibility to the right for vehicles approaching the junction along A6034 Bolton Road has also been considered. It is considered that a minor road distance of 2.0 metres is sufficient in this case as Brown Bank Lane is lightly trafficked and the speed limit of the A6034 Bolton Road is 30mph. The visibility to the right from Brown Bank Lane is 2.0 metres by 13.4 metres due to the presence of a drystone wall. It is not considered that using an x distance of 2.4 metres would decrease the



visibility much due to the location of the dry stone wall. However, the junction will still operate safely. This will be discussed further in Section 6.0, where the impact of the proposed development will be considered.

3.25 The A6034 Bolton Road continues to the south of the junction and passes through Silsden, becoming A6034 Keighley Road before meeting A629 and Station Road at a priority controlled four arm roundabout junction.

#### A6034 Bolton Road

- 3.26 From the junction with Brown Bank Lane, Bolton Road runs up hill in a northerly direction to Addingham and it has a generally straight alignment. In the vicinity of the junction with Fishbeck Lane, A6034 Bolton Road has a carriageway width of 8.8 metres and is subject to the National Speed Limit of 60mph. There is a continuous footway along the western side of the road, which has a width of 2.0 metres.
- 3.27 Opposite the junction, the carriageway centreline is marked by continuous double white lines which prevent overtaking in both directions. To either side of the junction, the double centreline markings continue with a solid white line preventing vehicles approaching the junction from overtaking.
- 3.28 However, the A6034 Bolton Road/Fishbeck Lane junction is of little relevance to the planning application as the routing plan will ensure that wagons do not use the western end of Fishbeck Lane as a means of access or egress to the site.

### Personal Injury Collisions

- 3.29 The record of (PICs) occurring as a result of road traffic accidents that have occurred within the study area during the most recent 5-year period from 17<sup>th</sup> April 2016 to 16<sup>th</sup> April 2021 has been obtained from Leeds City Council. The data shows that there have been only two PICs recorded, one of which was classified as 'serious' and one was classified as 'slight' in severity. The study area can be seen on the plan attached at Appendix BGH6. Due to the confidential nature of collision data, the data has not been attached to this report.
- 3.30 The 'serious' collision occurred on A6034 Bolton Road some 300 metres to the south of the Fishbeck Lane/A6034 Bolton Road junction. A cyclist fell from their bike and no other vehicles were involved in the collision. The 'slight' collision occurred on A6034 Bolton Road in the vicinity of the Brown Bank Lane/North Street/A6034 Bolton Road junction. The incident occurred when a passenger fell over on a bus as the bus pulled away from the bus stop.
- 3.31 The record of PICs has been assessed and no collisions occurred on Fishbeck Lane or Brown Bank Lane. Of the collisions which did occur on A6034 Bolton Road, only



a single vehicle was involved in both and the collisions could not be attributed to the road layout. It is therefore concluded that there are no obvious geometric deficiencies within the existing highway network in the vicinity of the site as the junctions and roads nearby the site currently operate safely. The development proposals will therefore not impact on the safe operation of the network.



### 4.0 PROPOSED DEVELOPMENT

### **Proposed Development**

- 4.1 The proposed development will be a dimension stone site, extracting block to be taken by road to the applicant's saw sheds which are located in Leyburn, North Yorkshire. Access to and from the development site will be provided by a short access track leading from the site onto Fishbeck Lane which in turn will run to the east to emerge on to the highway network at the junction of Fishbeck Lane and Brown Bank Lane.
- 4.2 A maximum number of four members of staff are required at the site and on some occasions, there would only need to be two members of staff present to operate the site.
- 4.3 The working hours of the site will be 07:30 18:00 from Monday to Friday and 08:00 13:00 on Saturdays, with no working on Sundays or Bank Holidays. There will be no working outside of these hours other than maintenance work.

### **HGV Vehicle Routing**

- The site operator will implement a routing plan for HGV's travelling to and from the site. All HGV drivers will be made aware of the routing plan which they will be required to follow when travelling to and from the site. The routing plan is attached at Appendix BGH7. HGV's passing to and from the site will be travelling between the site and the Client's saw sheds in Leyburn via the conditioned routing plan.
- The routing plan begins on the outskirts of Addingham. Hence, HGV's travelling to the site will therefore travel south along the A6034 Bolton Road from Addingham. They will then turn left onto Brown Bank Lane at the Brown Bank Lane/A6034 Bolton Road/North Street junction and travel along Brown Bank Lane until they reach the Fishbeck Lane/Brown Bank Lane junction. HGV's will then turn onto the eastern section of Fishbeck Lane until they reach the site access junction to enter the site.
- 4.6 HGV's exiting from the site will use the same route in reverse in order to head in the direction of Addingham and Leyburn when they are delivering stone. The above route ensures that HGV's do not use the western section of Fishbeck Lane, the north-east section of Brown Bank Lane or travel through Silsden.
- 4.7 All HGV trips will be undertaken by HGV's owned by the Client. The Client's policies regarding HGV vehicle routing are explicitly clear and similar to those enacted at other quarries.



4.8 Should a HGV driver not follow the routing plan, a warning will be issued and if they continued to ignore the routing plan, disciplinary procedures will begin. This could lead to the offending driver being dismissed should they continue to ignore the routing plan. This is very unlikely to happen as the routing plan is not inconvenient or convoluted and the client has no record of staff disobeying routing agreements elsewhere within their remit.

## Public Rights of Way

- 4.9 The plan at Appendix BGH3 shows the current alignment of the footpaths in the vicinity of the site. The plan shows that Footpath Silsden 18 will be diverted to run along the eastern and then northern boundary of the site. This will make the currently unusable Footpath Silsden 18 usable once again.
- 4.10 Footpath Silsden 19 will be diverted to avoid any conflict between pedestrians using the footpath and a HGV.
- 4.11 Suitable signage will be erected to direct users along the footpaths. This will provide clarity of the routes for pedestrians and for the HGV's which will improve the safe usage of the PRoW's.
- The Council's PRoW officer was consulted in the preparation of the previous application. A footpath diversion application would be made after planning permission is granted for the proposed mineral extraction to agree the details and progress the proposed improvements.



### 5.0 TRAFFIC GENERATION

- 5.1 The proposed development will be used as an extraction site only. The stone blocks which have been extracted at the site will be transported to the applicant's saw sheds in Leyburn. As a result, customers will not visit the site and therefore the trips generated are very much lower than for a retail site.
- Please note in the context of quarrying operations traffic flows are dealt with in a different manner to traffic flows in transport assessment. Therefore, for clarity, the two way trips are shown and the separate in and out trips are shown in brackets throughout this report.
- Details of the likely trip generation for the development has been provided by the client. There will be a maximum of 10 two-way HGV trips (5 in and 5 out) in any one working day and a maximum of 40 two-way HGV trips (20 in and 20 out) in any one week. The frequency of trips is very low and relates to a maximum of about 1 trip per hour.
- As set out previously, a maximum of 4 members of staff would be required to operate the site. Assuming all 4 members of staff drive to and from the site in their own vehicles, this will generate an additional 8 two-way car trips (4 in and 4 out) on the local highway network. Given the location, staff are unlikely to leave the site at lunchtime and will bring their own lunch to site and will usually remain on site all day. The additional 8 two-way car trips (4 in and 4 out) on the local highway network across the day will be a negligible increase. These are a set of robust, worst-case assumptions and it is possible that some members of staff may use alternative modes of transport or car share which would further reduce the number of staff trips. It is also important to understand that no customers would visit the site.
- 5.5 Even using the worst case scenario, the site will generate 10 two-way HGV trips (5 in and 5 out) per day and 8 two-way staff trips (4 in and 4 out) per day. Clearly, the impact on the roads on the route plan will be hardly noticeable and only the staff trips will generate a negligible number of trips which are not along the route plan.
- 5.6 The impact of the proposed development is assessed in the following section.



### 6.0 THE IMPACT OF THE PROPOSED DEVELOPMENT

- General guidance which originates from 'Guidance on Transport Assessment' states that if less than 30 trips per hour are generated that there is no need to carry out any further assessment. This development will generate less than 30 trips in a whole day as opposed to an hour.
- 6.2 Clearly the traffic impact of the scheme is negligible and there is no need to provide any additional infrastructure, road widening or passing places on Fishbeck Lane for such a small number of additional trips. Based on the above trip generation of a maximum of 10 two-way HGV trips (5 in and 5 out) per day and 8 two-way staff trips (4 in and 4 out) per day, it is <u>extremely</u> unlikely that two vehicles will meet each other on Fishbeck Lane.
- Also, the route plan is not a major diversion and is clearly more convenient than driving along the western section of Fishbeck Lane. Wagon drivers will have no reason not to use the route plan therefore there is a much greater possibility of the route plan being adhered to by HGV drivers than would otherwise be the case.
- As discussed in Section 3.0, the visibility at the Brown Bank Lane/A6034 Bolton Road junction is 2.0 metres x 13.4 metres. It is not considered that this visibility raises any safety concerns for the following reasons:
  - 1. Brown Bank Lane is lightly trafficked. Across the 7-day period ATC 1 was collecting data, an average of 301 vehicles travelled south-west bound towards the junction of Brown Bank Lane/A6034 Bolton Road per day. A road called Swartha Lane is the only other road vehicles who travel past ATC 1 could travel along aside from travelling to the Brown Bank Lane/A6034 Bolton Road junction. It has been robustly estimated that 25% of all vehicles which travel south-west bound past ATC 1 would go along Swartha Lane. This leaves 226 vehicles which travel down to the Brown Bank Lane/A6034 Bolton Road junction per day.
  - 2. The Personal Injury Collision (PIC) data shows that no collisions have occurred between vehicles at this junction (the only PIC at this junction occurred when a passenger fell over on a bus). Further details of PIC's on the local highway network are provided later in this section. The PIC data shows that over the 5 year study period no collisions occurred between vehicles at this junction. This shows that the average of 226 vehicles which approach the junction on Brown Bank Lane do not cause PIC's as a result of the visibility to the right and that the junction is operating safely at present.



- 3. The proposed development will result in a very small increase in trips through this junction from Brown Bank Lane. As set out in Section 5.0, the proposed development will generate an additional 5 HGV trips and 4 car trips approaching this junction from Brown Bank Lane per day. This is a small percentage increase of 4% compared to its current usage, set out in point 1. Given that the junction presently operates safely with no collisions occurring between vehicles, it is not considered that 9 additional trips (4% increase) will cause an increase in collisions at this junction.
- 4. It is considered that most trips which use this junction will use it regularly therefore they know the existing road layout and have negotiated the junction numerous times before without causing collisions which is illustrated by the collision data.
- 5. In addition to the above points, the visibility for HGV drivers is better than that of other, smaller vehicles. This is due to HGV drivers being located higher than other vehicles. In this case the implication is that drivers can see to the right over the top of the wall.
- It has been acknowledged that the existing network may not fully comply with visibility splay standards but nevertheless it is currently operating safety. Any shortfall in visibility is generally associated with a historic highways network which is well understood by those who use it. The traffic generation of the scheme has been shown to be negligible and there will be little impact on the network. It has therefore been demonstrated that even with the development in place the existing network will continue to operate safely.
- Some queries were raised by the impact of the scheme in the pre-application letter as part of the previous application. In practice, the traffic generation is very low and the route plan will mitigate any possible impacts for users of the caravan park, cyclists or pedestrians.
- 6.7 It is therefore concluded that the trip generation from the development will not have a material impact on the operation of the local highway network in the vicinity of the site and that the development will not have a detrimental impact on road safety.



### 7.0 SUMMARY AND CONCLUSIONS

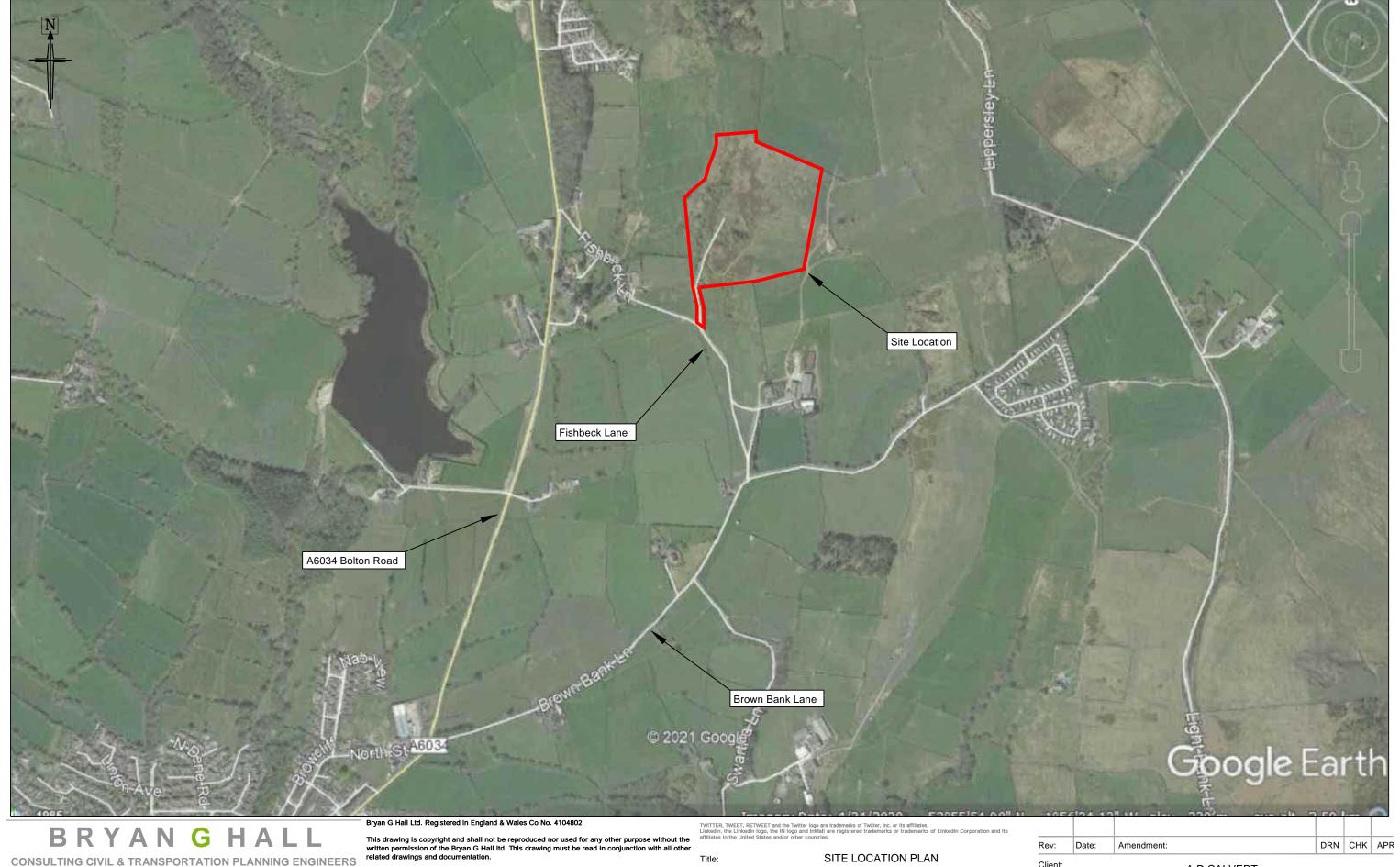
- 7.1 This Transport Statement has been prepared by Bryan G Hall to support a planning application by A.D. Calvert for a proposed dimension stone extraction site near Silsden in Bradford, West Yorkshire. The site has previously been quarried on an ad hoc basis.
- 7.2 The site is bound by agricultural land in all directions. Access to the site is currently available from the Fishbeck Lane/Bolton Road junction and Fishbeck Lane/Brown Bank Lane junction.
- 7.3 Two Public Rights of Way currently cross the site. Subject to the relevant procedures, it is proposed that both of these will be diverted and the public footpath signage will be improved.
- 7.4 The existing local highway network has been reviewed and it is considered to be suitable for the proposed development to use, for the reasons set out within the report.
- 7.5 A review of the collision record on the local highway network has revealed that the local highway network is operating safely at present.
- The proposed development will be a dimension stone site, extracting block to be taken by road to A.D. Calvert's saw sheds in Leyburn. Access and egress will only be by way of the Fishbeck Lane/Brown Bank Lane junction and HGV drivers will not be able to use the western section of Fishbeck Lane, the north-east section of Brown Bank Lane or travel through Silsden. This will be enforced by a routing plan which will ultimately result in the dismissal of wagon drivers who fail to adhere to the routing plan.
- 7.7 The separate in and out trips are shown in brackets throughout this report. The site will generate 10 two-way HGV trips (5 in and 5 out) per day and 8 two-way staff trips (4 in and 4 out) per day. Therefore, the trip generation from the development will not have a material impact on the operation of the local highway network in the vicinity of the site.
- 7.8 It has been demonstrated that the adjacent highway network is operating safely and the additional increase in traffic is so small that the network will continue to operate safely with the quarry in operation.



- 7.9 It has been deemed unnecessary to provide a passing place on Fishbeck Lane as it is extremely unlikely that two vehicles will meet each other on Fishbeck Lane.
- 7.10 It is therefore concluded that there is no justifiable reason to refuse the planning application on highways grounds.



# **APPENDIX BGH 1**



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SITE LOCATION PLAN

**PLANNING** 

Client: A D CALVERT

HORN CRAG QUARRY, BRADFORD Project:

21/207/LOC/003 Revision: -Drawn: DM Chkd: GB Appvd: GB Size: A3 - 420 x 297 21-207 Date: 10.05.2021

# **APPENDIX BGH 2**



**PMJOK** 

AD Calvert Architectural Stone Supplies Ltd. C/O MPG Oakdene House Cottingley Business Park Bingley BD16 1PE

# Department of Place

# Planning, Transportation and Highways Development Services

Major Development Team Britannia House, Hall Ings Bradford, BD1 1HX

Contact: Carole Howarth Tel: (01274) 434605

E-Mail: carole.howarth@bradford.gov.uk

Ward: Craven (ward 09)

Application Number: 20/01844/PMJ

18 August 2020

Dear Sir/Madam

Pre-application Enquiry Response

**ENQUIRY NUMBER: 20/01844/PMJ** 

PROPOSAL: Site to be worked as a dimension stone site, extracting block to be taken by road to the applicant's processing facilities. The Site would occupy a surface area of approximately 5.9ha, including a short access track to Fishbeck Lane.

LOCATION: Horn Crag Quarry Off Fishbeck Lane Silsden West Yorkshire

I refer our recent pre-application enquiry meeting on the 4 August 2020 and to details of your proposals received on 21 May 2020 for the following:

### **Development Description**

Site to be worked as a dimension stone site, extracting block to be taken by road to the applicant's processing facilities. The Site would occupy a surface area of approximately 5.9ha, including a short access track to Fishbeck Lane.

Your proposal appears, in principle, to form the basis of an <u>acceptable</u> application although I would advise you that the following issues need to be addressed and incorporated into the formal planning application submission:

### Principal

The site identified in your pre-application enquiry is within the Green Belt. As the site is within the Green Belt Strategic Policy 7 in the adopted Core Strategy is relevant (which defines the Green Belt) as is saved policy GB1 of the replacement Unitary Development Plan (RUDP) which considers the policy base for green belt protection.

The proposal for quarrying of the remaining reserve is not considered inappropriate development in the Green Belt, as it is considered that it is possible to preserve the openness and not conflict with the purposes of land included within it. However, reference should be made to preservation of the openness in any submission.

Paragraph 146 of the NPPF confirms that minerals extraction is not inappropriate in the Green Belt, provided the development preserves the openness of the Green Belt and does not conflict with the purposes of including land within the Green Belt. Recent cases Samuel Smith Old Brewery Vs North Yorkshire County Council Court of Appeal Case (2018) have highlighted the need to consider the impacts of quarrying in the Green Belt.

Specific minerals policies in the NPPF and section 5 of the Core Strategy support the sustainable use of minerals. The NPPF acknowledges that minerals are essential to support sustainable economic growth and that it is important to ensure a sufficient supply of material to provide the infrastructure and buildings; stating great weight should be given to the benefits of minerals extraction, but ensuring that there are no unacceptable adverse impacts. The Bradford Local Plan Core Strategy policies again reflect and emphasise those set out in the NPPF.

Paragraph 205 of the NPPF states that great weight should be given to the benefits of the mineral extraction, including to the economy, but the expectation is that unacceptable adverse impacts are avoided and/or mitigated. Small scale extraction of building stone is also noted in the NPPF, with it stated planning authorities should recognise the small-scale nature and impact of building and roofing stone quarries, and the need for a flexible approach to the potentially long duration of planning permissions reflecting the intermittent or low rate of working at many sites.

Policy EN9(B) of the Bradford Local Plan Core Strategy states that proposals to open up a new minerals extraction site on previously developed land, re-open a disused minerals extraction site, or extend an existing minerals extraction sites, will be supported in principle provided that certain criteria are met. Policies EN9 and EN10 of the Bradford Local Plan Core Strategy should be noted in any submission.

As noted in the virtual meeting on the 4 August 2020, the site is not an allocated nor within an area of search in the RUDP, nor is the site shown as a minerals safeguarded area in the Bradford Local Plan Core Strategy which is based on the BGS resource maps. However, this does not preclude the site being brought forward, provided it is demonstrated that there is an economically viable mineral and that the mineral supports a need, particularly for scare building roofing or paving stones such as stone slates, riven flags, or matching stones needed for repair of historic buildings.

Other evidence regarding the exclusion of the site from the BGS resource maps was also discussed. You consider that the site/area may have been excluded due to BGS screening methodology, which may exclude areas that have an overburden depth of more than 2m. Any evidence you have regarding this should also be supplied with any submission.

### **Detailed Advice**

Without prejudice to the above advice on the principle of the proposal, I can confirm that your pre-application enquiry has been assessed by the planning officer and a range of technical officers (for which you received their detailed responses on the 16 July 2020, but I attach again for completeness) and I can provide the following further advice:

## **Public Rights of Way**

As you are aware, Footpath 18 Silsden crosses the site. There is also Footpath 19 Silsden to the south.

The PROW of officer has noted that as Footpath 18 Silsden crosses the site, the quarrying activity would be default impact on the footpath and obstruct the footpath, therefore the PROW officer has noted that they are currently unable to support the proposal.

Footpath 18 Silsden was discussed at the meeting on the 4 August 2020, you advised that the line of this footpath currently takes it up a vertical quarry face, it is not possible to walk the footpath line and it is not used by the public. You considered that by diverting the footpath, it could be made usable again. It was advised that these issues for Footpath 18 Silsden should be noted in any submission, nevertheless it was advised that a legal diversion of Footpath 18 Silsden would be required, in order for the PROW officer to support the proposal. As indicated in the meeting, advice should be sought directly with the PROW officer Fiona Plane (Fiona.plane@bradfrod.gov.uk) regarding a diversion and if it should be a temporary or permanent diversion.

Footpath 19 Silsden to the south was also discussed, you did not feel this footpath would be significantly affected by the quarrying proposals. However, the PROW officer suggests there could be conflict between vehicles accessing the site and pedestrians using Footpath 19, because there is unlikely to be room for pedestrians to pass vehicles using the track without stepping off the track onto the adjacent land. Any potential impacts should be noted and mitigation proposed. Again advice regarding the impacts on this PROW should be discussed directly with the PROW officer.

Policy AD1 E (3) in Bradford Local Plan Core Strategy supports the improvement of public rights of way and assessment against this policy should also be made.

# Highways

Both the Highways DC officer and Highways Transport Planner have commented on various highway matters.

As expected a Transport Statement is required with any submission, this should include the maximum daily traffic generation and a routing plan. Along with any impacts on pedestrians, cyclist, agricultural and leisure traffic. As discussed in the meeting on the 4 August, the intention is to supply a clear routing plan which shows how HGV's will travel to the site on the surrounding road network.

The Highways DC officer has noted that the site would be accessed from Fishbeck Lane which is an unadopted rural road and is substandard in width and geometry particularly between the proposed access track and the A6034 Bolton Road. The supporting statement indicates that the site would be accessed from Bolton Road to the south via Brown Bank Lane. The TS should explain how the use of the more direct route to Bolton Road along Fishbeck Lane would be prevented and also HGV's using the eastern section of Brown Bank Lane to travel north.

With it further noted by the Highways DC officer that Fishbeck Lane will need to be assessed between the access track and Brown Bank Lane for its suitability for two-way HGV movements and passing places provided where necessary. Visibility at the access track junction and at Brown Bank Lane should also be assessed. Visibility at junction of Brown Bank Lane and Bolton Road should also be assessed.

The Highways Transport Planner has noted similar matters to the Highway DC officer, but has additionally noted the nearby static caravan park and the gradients of Brown Bank Lane from Silsden Road and difficulties accessing in inclement weather.

As discussed in the meeting on the 4 August, the number of HGVs that would visit the site per day, coupled with a Transport Statement, routing plan and information requested by the Highways DC officer/Transport Planner should be sufficient enough evidence to demonstrate any highways impacts. The relevant mitigation if so required upon assessment should also be provided (e.g. passing points).

Various policies within the Bradford Local Plan Core Strategy should be noted regarding transport, as set out in section 5.2 Transport and Movement and in section 5.7 on Design, referencing policies DS5 and DS5 on highway design and safety

### Biodiversity

The Biodiversity officer has noted that the site has very high quality biodiversity habitats and forms part of the Bradford wide Ecological habitat network. Advice has now been provided in an e-mail of the 5 August 2020 of what a Bradford Ecological habitat network constitutes and where to find the information, in this case with West Yorkshire Ecology.

Due consideration should be given to the high quality habitat, with it also noted that the site is within 2.5km of the South Pennine Moors SPA. Policy SC8 of the Bradford Local Plan Core Strategy is split into three zones, A, B and C. This site falls into Zone B and therefore there is a requirement to assess whether the land may be functionally connected to the SPA in that it provides a foraging habitat for qualifying species. In this case, certain bird species -there are records of curlew from the site and potentially other birds such as golden plover may forage here.

The biodiversity officer has commented that if assessments conclude that the development can be accepted, net gain for biodiversity *must* be delivered over a reasonable timescale and action plans to retain the maximum habitats and protect wildlife in the interim.

The biodiversity officer has note the PEA, but has advised that full ecological impact assessment is probable, which is likely to include bird surveys and other protected species surveys undertaken strictly to accepted standards. Additionally, they comment that a very good habitat baseline will need to be established with surveys undertaken at the correct time of year. The Defra Beta 2 metric should be applied to the development (with a high connectivity variant used) and enhancements should be retained in the development area without offsets.

Policies that should be noted in the Bradford Local Plan Core Strategy are EN2 and SC8, along with all protected sites and species legislation. As noted by the biodiversity officer, mitigation, enhancements and integrated biodiversity features will need to be clearly set out within Development submissions such as Landscape and Ecology Management Plans and maps.

The impacts on biodiversity will also need assessing against policies minerals policies EN9 and EN10 of the Bradford Local Plan Core Strategy

### Landscape and trees

The landscape officer notes that Horn Cragg is a prominent landscape feature and the area is used for recreational purposes.

It is noted that is lies within the Rombalds Ridge Landscape Character Area as defined within the Bradford SPD. It is designated as within an area of Upland Pasture.

The landscape officer is clear in that any new proposal must demonstrate any impact on the Landscape Character of the area and the impact on the recreational enjoyment both in the immediate local environment and in terms of the broader landscape. With it stated that any proposal must submit a full evaluation of the current situation, including a visual impact assessment and photo montages of the appearance of the site from all key viewpoints during the proposed extraction period.

There is a concern by the landscape officer that the landscape character is established in this area and is very distinctive, therefore any disturbances would need to be fully justified and adverse impacts on the landscape character and recreational benefits fully considered and mitigated.

The tree officer notes a number of mature trees and emerging woodland to the west of the site. This was discussed in the meeting of the 4 August and you did not consider that there were any trees of consequence within the former quarry/redline. If this is the case, you will need to provide evidence and also be clear that any trees outside the redline are not impacted upon. If there is any impact on trees, an arboricultural impact assessment to BS5837:2012 and potentially a tree protection plan may be required.

The relevant policies in the Bradford Local Plan Core Strategy should be noted, in particular EN4 related to impacts on the landscape and DS2 working with the landscape; EN5 Trees and Woodland; and minerals policies EN9 and EN10 in terms of impacts on the landscape.

### **Environmental Health**

The Environmental Health comments have been recently forwarded on the 17 August 2020 however, it was discussed at the meeting of the 4 August 2020, the likely issues that may arise from EH. It appears the discussions are borne out, with land quality, private water supply, air quality and nuisance noted in EH officer response.

The land quality comment is a general comment advising consideration of any previous tipping/activities on the site. A short narrative around this point is advised, but if anything becomes evident a phase 1 Geo-environmental Assessment maybe required.

In terms of the public water supply, EH acknowledge that you have identified the presence of private water supplies on Fishbeck Lane and Fishbeck Farm. As expected, EH have requested an assessment of the potential impact of mineral extraction operations on the quality and sufficiency of private water supplies in the area, suggesting that Neil Winchcombe <a href="mailto:neil.winchcombe@bradford.gov.uk">neil.winchcombe@bradford.gov.uk</a> is contacted if required. In the meeting of the 4 August you suggested that you had already discussed private water supply with residents and that you are likely to provide a new borehole for residents. The information and options for private water supply should be detailed in any submission.

The air quality comments are fairly standard comments that are now given on such proposals and due consideration should be given after a full traffic assessment of the traffic generation and as to whether or not any detailed dispersion modelling is required. However, the traffic generation appears low and it is suggested by EH that there would be limited air quality impacts from the quarry activities as the processing will be carried out at another site.

In terms of nuisance, the minerals extraction phase is as expected, noise, dust and vibration - any such environmental impacts should be reviewed and considered in the submission. The impacts on the existing residential properties should be noted and the necessary survey's requested by EH submitted. The hours of operation requested by EH are later than envisaged in your documents i.e. EH seek an 8am start rather than 7:30. Any proposed start time earlier than that suggested by EH should be evidenced and with it demonstrated that the hours would not adversely impact on residential amenity.

The impact on all EH issues will need assessing against policy EN8 - Environmental Protection Policy –in the Core Strategy and the relevant parts of minerals policies EN9 and EN10.

### Other matters

<u>Yorkshire Electricity</u> –external consultees are not part of the pre-application service, however, it is worth noting that they did have some issues in the 1980s with a 11kv line in the area. The proximity (or not) of any electricity lines should be checked and considered as part of any submission.

<u>Heritage</u> –noted that no known heritage implications for designated assets arising from proposed workings at Horn Crag. There may be benefits in supply of stone compatible with heritage buildings.

<u>Drainage</u> - The LLFA do not have any objections in principle with the proposed development. Noted that there's an access track to the quarry off Fishbeck Lane, and details of any drainage this has, as it looks like it falls towards the lane. Ideally this information should be provided as part of the Flood Risk Assessment which the developer has said they will provide with any subsequent planning application

<u>Public Health</u> –Noted matters similar to Environmental Health. Seek to understand end use. Also note that local community engagement is a must

<u>WY Police</u> –Noted that crime wise figures are relatively low in this rural area. They have also noted points that have already been covered by highways and Environmental Health.

# Community Infrastructure Levy Officer

Bradford Council gained Full Council approval to adopt a Community Infrastructure Levy (CIL) on 21st March 2017. CIL was implemented on the 1st July 2017.

The Horn Crag Quarry proposal is not a CIL liable use. Therefore, should the proposal progress to a formal planning application, the applicant will not be required to submit CIL forms.

## Planning Obligations

A legal agreement under S106 of the Act may be required if there are any off-site infrastructure provision requirements and/or financial contribution.

If a S106 agreement is required, the following documents should be submitted alongside the planning application:

- Title evidence
- Details of your legal representative
- A completed undertaking that you will meet the Councils reasonable costs incurred in connection with the Agreement. These costs will be payable whether or not the Agreement proceeds to completion

## **Public Engagement**

The Council's Statement of Community Involvement (SCI) sets out the standards for involving the community during the preparation of the Local Plan and in the consideration of planning applications. The SCI can be viewed at: <a href="https://www.bradford.gov.uk/planning-and-building-control/planning-policy/statement-of-community-involvement/">https://www.bradford.gov.uk/planning-and-building-control/planning-policy/statement-of-community-involvement/</a>

Bradford proactively supports the principles of the National Planning Policy Framework regarding the `front-loading' of community consultation. The SCI encourages developers to undertake pre-application consultation appropriate to the scale and nature of the development. In accordance with the SCI it is recommended that you consult the occupants of premises within the vicinity of the site together with local Ward Councillors and the Parish Council. A community consultation event is also recommended.

A Statement of Community Involvement Statement should be submitted with your application. This statement should set out how you have complied with the requirements for pre-application consultation set out in the adopted SCI and demonstrate how the views of the local community have been sought and taken into account in the formulation of the development proposal.

### Planning for Inclusion

The Council will need to assess all planning applications submitted to ensure that they are inclusive. There are existing Development Plan policies that apply in relation to this material consideration and all schemes will need to comply with nationally adopted planning policy and other legal provisions including the Equality Act 2010.

When most major planning applications are submitted representations will be sought from the Council's Planning and Highways Access Forum, a consultative group set up to comment on proposed development schemes. Applicants are encouraged to consult with the Forum as part of their Community Involvement Exercise prior to submitting a planning application as this will help to ensure that inclusion is considered early on in the development process and thus avoid expensive amendments at a later stage.

## Required Documentation to Support a Planning Application

Details of the national and local validation requirements for major planning applications can be found at <a href="www.bradford.gov.uk/planningforms">www.bradford.gov.uk/planningforms</a>. However, as part of the pre-application process, specific consideration has been given to the documentation which is likely to be required to support a planning application for the type of development described in your pre-application enquiry, it is not an exhaustive list but an indication of documents:

- Planning Statement –to include a full description of mineral extraction, need and the proposed afteruse –linked to the relevant policies
- Engineered drawings to show existing and proposed levels –along with site sections.
- Any cut/fill operation or infilling operation. Volumes of fill over and above those already permitted and timelines, HGV movements etc. associated with this.
- Noise and dust assessments
- Landscaping Assessment (including photomontages)
- A preliminary ecological appraisal (PEA) and documentation to demonstrate net biodiversity. It is likely a more detailed ecological survey will be required
- If trees on site or impacted upon, an arboricultural impact assessment to BS5837:2012
- Public Rights of Way Assessment and proposals
- Private Water supply hydrological assessment and proposed mitigation and/or alternate water supplies
- Transport Statement including drawings & ref re: visibility splays, passing points and routing.
- Flood Risk Assessment
- Statement of Community Involvement
- If S106 required Heads of Terms/ Fees Undertaking

This letter represents the Council's initial view of the proposals at this stage, based on the information available. It should not be interpreted as formal confirmation of the acceptability or otherwise of the proposal at this time and cannot be held to prejudice the formal determination of any planning application.

If you have any queries in relation to the above matters do not hesitate to contact Carole Howarth.

Yours faithfully



Julian Jackson Assistant Director (Planning, Transportation and Highways) Department of Regeneration



To:
Carole Howarth
Development Management
Britannia House, Hall Ings
Bradford, BD1 1HX

From:
Highways Development Control
Britannia House, Hall Ings

Bradford, BD1 1HX

# Highways Consultation Response to Planning Application 20/01844/PMJ

Location: HDC Ref: 20/00363/PRE
Horn Crag Quarry Off Date In: 22 Jun 2020
Fishbeck Lane First Response: 14 Jul 2020
Silsden Latest Response: 14 Jul 2020
West Yorkshire

Applicant Name: AD Calvert Architectural

Stone Supplies Ltd.

Highway Officer: Aftab Rashid Telephone Number: 01274 437415 Email: aftab.rashid@bradford.gov.uk

#### **Highways Advice**

I refer to the above pre-application enquiry and would offer the following observations.

The application is seeking advice on a future planning application to set up a quarrying site, with a short access track to Fishbeck Lane, for extracting stone blocks to transported to the applicant's processing facilities.

A Transport Statement (TS) should be submitted with any planning application.

The TS should set out the site's maximum daily traffic generation and a routing plan. The proposed development's impact on pedestrians, cyclists, agricultural and leisure traffic should also be assessed.

The site would be accessed from Fishbeck Lane which is an unadopted rural road and is substandard in width and geometry particularly between the proposed access track and the A6034 Bolton Road. The supporting statement indicates that the site would be accessed from Bolton Road to the south via Brown Bank Lane. The TS should explain how the use of the more direct route to Bolton Road along Fishbeck Lane would be prevented and also HGV's using the eastern section of Brown Bank Lane to travel north.

Fishbeck Lane will need to be assessed between the access track and Brown Bank Lane for its suitability for two-way HGV movements and passing places provided where necessary. Visibility at the access track junction and at Brown Bank Lane should also be





assessed. Visibility at junction of Brown Bank Lane and Bolton Road should also be assessed.

The applicant will need to serve notice on the owner of Fishbeck Lane.



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To:
Carole Howarth
Development Management
Britannia House, Hall Ings
Bradford, BD1 1HX

From: Highways Development Control Britannia House, Hall Ings Bradford, BD1 1HX

# Highways Consultation Response to Planning Application 22/01170/MAF

Location: HDC Ref: 22/00223/SIG
Horn Crag Quarry Off Date In: 23 Mar 2022
Fishbeck Lane First Response: 19 Apr 2022
Silsden Latest Response: 19 Apr 2022
Keighley

Applicant Name: Andrew Calvert Highway Officer: Gurnam Shergill

Telephone Number: 07855 177231 Email: gurnam.sherqill@bradford.gov.uk

#### **Highways Advice**

West Yorkshire

This application is described as being for "Re-opening of Horn Crag Quarry for the purpose of releasing a proven, locally distinctive building stone resource".

Highways have previously provided advice for this type of proposal on pre-application enquiry 20/01844/PMJ and raised some matters that would need to be addressed as part of any future planning application.

As suggested a Transport Statement (TS) has been submitted with the current application and having reviewed this document further information is still required to address some of the issues highlighted below.

#### DAILY SITE TRAFFIC GENERATIONS

The TS indicates that there will be a maximum of 10 two-way HGV trips (5 in and 5 out) in any one working day and a maximum of 40 two-way HGV trips (20 in and 20 out) in any one week. There will also be an additional 8 two-way car trips (4 in and 4 out) by employees on the site.

Whilst the proposed number of daily HGV movements is considered to be relatively low additional information is still required for Highways to carry out a full assessment of the proposal and this has been highlighted in more detail below.





It should be noted that if the Council were minded to approve this application then a suitably worded condition would be required to limit the maximum daily HGV movements to 10 two-way trips (5 in and 5 out) and maximum of 40 two-way HGV trips (20 in and 20 out) in any one week.

#### **ROUTING PLAN**

The site is accessed from Fishbeck Lane, which is an unadopted rural road, and the TS acknowledges the fact that this is substandard in width and geometry particularly between the proposed access track and the A6034 Bolton Road.

At its western end, Fishbeck Lane forms a priority junction with Bolton Road. The junction does not meet usual highways standards and Fishbeck Lane meets Bolton Road at an acute angle. It has no footways and is gated directly to the east of the existing properties on this end of the road. It is not clear how opening/closing of the gate is controlled although the former quarry is likely to have access rights over this section of the road. However due to the proposed routing plan the applicant is suggesting that HGV's from the proposed quarry will not use this junction to access or egress the site.

The routing plan (drawing ref: 232/5/1-6) shows that the site operator will implement a plan for HGV's travelling to and from the site. All HGV drivers will be made aware of the routing plan which they will be required to follow when travelling to and from the site from the applicant's saw sheds in Leyburn.

HGV's travelling to the site will travel south along the A6034 Bolton Road from Addingham. They will then turn left onto Brown Bank Lane at the Brown Bank Lane/A6034 Bolton Road/North Street junction and travel along Brown Bank Lane until they reach the Fishbeck Lane/Brown Bank Lane junction. HGV's will then turn onto the eastern section of Fishbeck Lane until they reach the site access junction to enter the site.

HGV's exiting the site will use the same route in reverse order to head in the direction of Addingham and Leyburn when they are delivering stone.

At pre-app stage Highways highlighted some issues with this route which would have to be addressed in the TS (e.g. visibility at the junctions of Fishbeck Lane / Brown Bank Lane and Brown Bank Lane / Bolton Road).

These are matters are still outstanding and are discussed in more detail below.

It should be noted that if the Council were minded to approve this application then a suitably worded condition would be required to make sure the proposed routing plan is strictly enforced/adhered to.

VISIBILITY SPLAYS AT JUNCTION OF FISHBECK LANE & BROWN BANK LANE Brown Bank Lane is subject to the national speed limit of 60 mph and the TS confirms that the 'Y' distance associated with this speed cannot be achieved.

The junction of Fishbeck Lane lies on a bend and as a result, vehicles are highly unlikely to be travelling at this speed. The TS states that the achievable visibility splay to the left for vehicles emerging from Fishbeck Lane is 2.4m x 47.0m and that this 'Y' distance would be appropriate for vehicle speeds of up to 31 mph.

The TS also states that visibility to the right from Fishbeck Lane is in excess of 2.4m x 100.0m and this is 'considered to be sufficient'.

However, no supporting information (other than the comments 'observed speeds' and 'such a visibility splay is sufficient for the junction to operate safely') have been put forward to demonstrate what the actual vehicle speeds are on this road. It cannot be assumed that the existing visibility splays are acceptable and further evidence is required to support these statements.

ACTION REQUIRED - The applicant should provide further information in the form of a speed survey to show what the 85% wet weather speeds are on this road in the vicinity of this junction and show how appropriate visibility splays, in accordance with these speeds, can be achieved.

The number of existing daily vehicular movements on Fishbeck Road should also be recorded and presented so that Highways can assess the likelihood of conflicts between vehicular movements occurring on Fishbeck Lane between Brown Bank Lane and the site access.

VISIBILITY SPLAYS AT JUNCTION OF BROWN BANK LANE & BOLTON ROAD When assessing visibility splays for vehicles approaching the junction with Bolton Road an 'X' distance of 2.0 metres has been used and the TS states that this "has been accepted by Bradford Council Highways due to the gradient and the historic, rural nature of the road".

However, a distance of 2.0m would not normally be appropriate for use on these types roads and should only be used on slow speed, lightly trafficked roads and then usually only for individual dwellings off lower order roads.

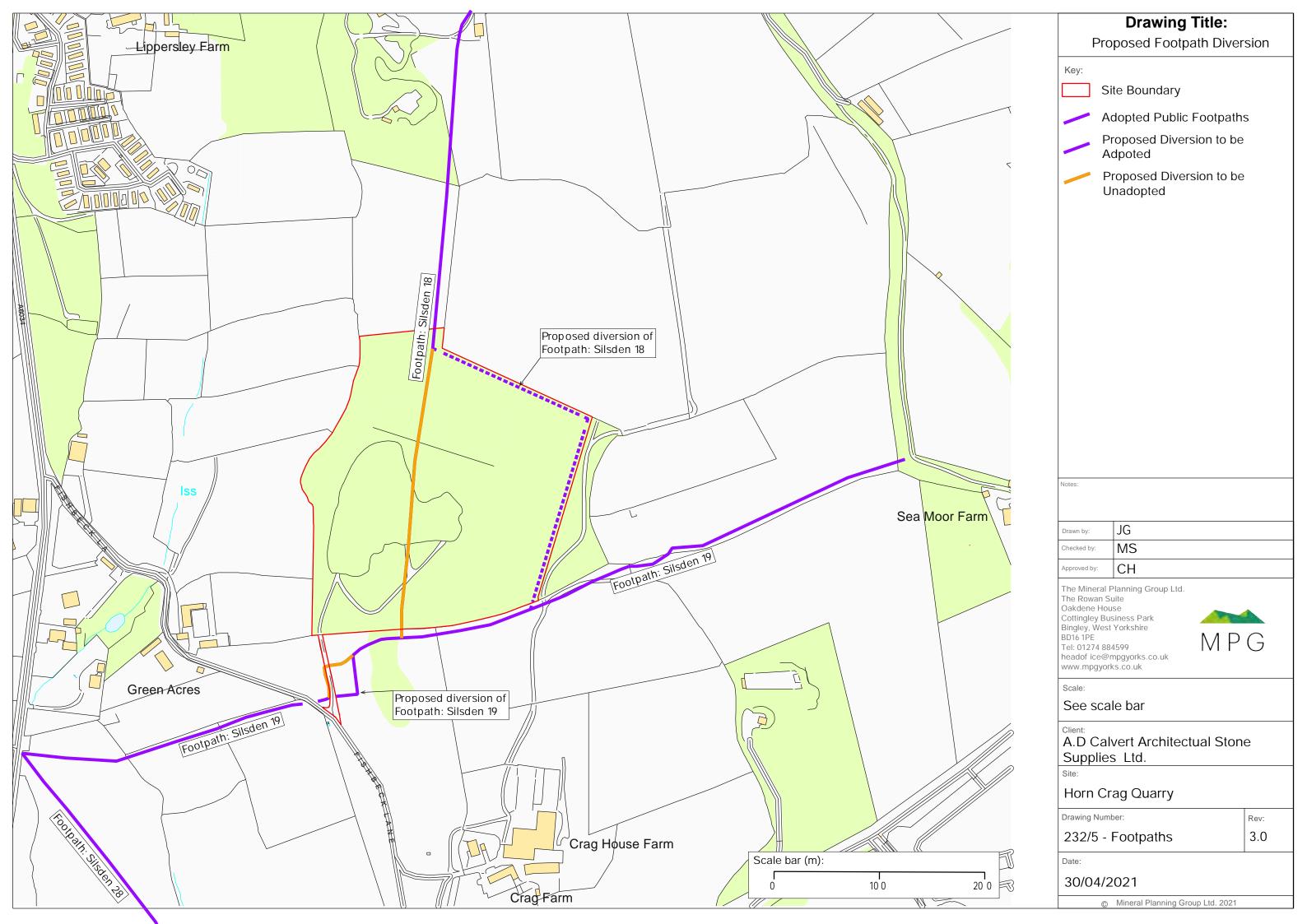
ACTION REQUIRED - The applicant should clarify with whom the use of an 'X' distance of 2.0m has been 'accepted' in this location.

The applicant should note that it is more likely that visibility splays will have to be demonstrated using an 'X' distance of 2.4m.

Regards

Gurnam Shergill Engineer, Highway Development Control

# **APPENDIX BGH 3**



# **APPENDIX BGH 4**



**CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS** 

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Sulte E15 | Josephs Well

LONDON T0203 5532336

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ATC SURVEY LOCATION PLAN

DRN CHK APR Date:

Revision: -

Date: 09.06.2022

Client: A D CALVERT

HORN CRAG QUARRY, BRADFORD Project:

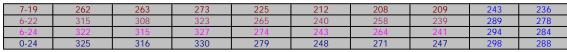
FOR INFORMATION

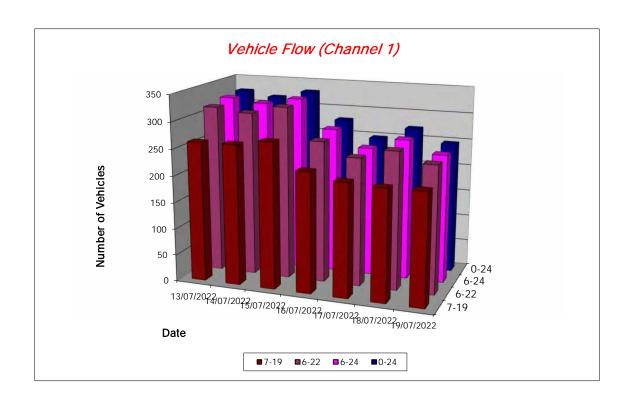
21/207/LOC/004 Chkd: GB Appvd: GB Size: A3 - 420 x 297 21-207

# **APPENDIX BGH 5**

Channel 1 - Northeastbound Vehicle Flow Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022	Weekday	
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Average	Average
1	2	0	1	0	3	0	0	1	1
2	0	0	0	3	2	1	0	0	1
3	0	0	0	1	0	0	1	0	0
4	0	0	0	0	0	1	0	0	0
5	1	1	0	0	0	0	0	0	0
6	0	0	2	1	0	5	5	2	2
7	10	9	8	2	3	9	5	8	7
8	30	25	27	10	5	16	23	24	19
9	32	32	30	19	12	25	27	29	25
10	21	19	22	23	21	26	16	21	21
11	19	20	15	19	16	11	17	16	17
12	19	17	19	30	22	20	10	17	20
13	15	21	22	22	24	13	24	19	20
14	18	26	27	21	18	15	17	21	20
15	17	21	24	13	23	21	16	20	19
16	21	24	21	23	21	12	15	19	20
17	21	19	19	18	16	21	11	18	18
18	23	21	27	13	19	17	15	21	19
19	26	18	20	14	15	11	18	19	17
20	21	13	16	23	9	17	11	16	16
21	15	16	20	6	13	13	5	14	13
22	7	7	6	9	3	11	9	8	7
23	6	4	3	6	2	2	1	3	3
24	1	3	1	3	1	4	1	2	2
				·				·	•





#### Produced by Road Data Services Ltd.

Channel 1 - Northeastbound

#### Average Speed

Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
1	28.1	-	33.0	-	27.3	-	-
2	-	-	-	25.8	32.6	20.5	-
3	-	=	-	39.5	-	=	33.1
4	-	-	-	-	-	37.9	-
5	8.9	9.1	-	-	-	-	-
6	-	-	28.5	32.3	-	30.5	33.4
7	33.0	26.3	35.2	29.0	29.5	28.8	30.6
8	29.9	32.0	30.3	29.4	18.0	32.0	30.8
9	30.8	32.3	30.6	26.9	26.3	32.1	29.8
10	28.7	26.7	33.3	30.8	27.7	27.6	32.8
11	26.4	27.7	28.2	29.2	30.0	29.8	30.2
12	29.0	31.6	28.2	32.2	28.2	29.9	30.1
13	28.4	29.2	34.3	27.7	30.2	30.5	32.5
14	33.0	28.6	28.5	27.3	31.1	28.2	34.5
15	27.5	28.4	29.2	32.6	29.8	30.1	30.1
16	30.5	27.8	29.5	30.1	31.8	29.8	32.5
17	24.9	29.7	28.3	30.6	29.8	28.9	31.0
18	28.2	32.7	31.2	26.1	29.3	32.5	33.7
19	25.4	29.0	30.0	26.2	27.1	31.5	28.8
20	26.1	29.9	29.0	24.1	29.0	31.3	28.3
21	29.5	29.7	28.8	30.2	30.8	31.6	32.1
22	29.0	30.9	26.9	25.2	17.5	26.6	32.5
23	28.6	28.9	34.4	22.6	28.9	27.9	24.2
24	31.6	25.1	28.5	25.3	39.2	29.5	29.9

10-12	21.1	29.5	28.2	31.0	29.0	29.9	30.2
14-16	29.1	28.1	29.4	31.0	30.8	30.0	31.2
0-24	28.6	29.6	30.2	28.6	29.1	30.1	31.3

#### Channel 1 - Northeastbound

| Average (ALL) | 29.6 | | Weekday Inter-Peak | 29.2 | | 85th Percentile |

Hr Ending         Wednesday         Thursday         Friday         Saturday         Sunday         Monday         Tuesday           1         28.5         -         -         29.2         33.0         -         -           2         -         -         -         -         -         -         -           3         -         -         -         -         -         -         -         -           4         -		13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
1       28.5       -       -       -       29.2       33.0       -       -         3       -       -       -       -       -       -       -         4       -       -       -       -       -       -       -         5       -       -       -       -       -       -       -       -       -         6       -       -       -       34.7       -       -       38.8       39.8         7       42.4       33.3       40.7       31.8       35.4       38.8       36.5         8       37.2       36.8       37.0       35.1       24.4       37.2       37.3         9       37.2       39.0       38.7       38.8       32.3       39.1       35.3         10       35.6       33.8       39.2       38.0       35.7       38.2       41.2         11       36.3       35.7       31.9       34.4       33.6       39.3       34.6         12       35.6       38.0       37.1       40.5       35.5       36.1       34.7         13       36.6       36.0       41.9       36.2       <	Ur Endina							
2         -         -         -         29.2         33.0         -         -           3         -         -         -         -         -         -         -           4         -         -         -         -         -         -         -         -           5         - </td <td>1 Elluling</td> <td></td> <td>Hiursuay</td> <td></td> <td>Saluruay</td> <td></td> <td></td> <td>Tuesuay</td>	1 Elluling		Hiursuay		Saluruay			Tuesuay
3         -	1	20.3	-		20.2		-	-
4         -		-	-		29.2		-	-
5         -					-			-
6         -         -         34.7         -         -         38.8         39.8           7         42.4         33.3         40.7         31.8         35.4         38.8         36.5           8         37.2         36.8         37.0         35.1         24.4         37.2         37.3           9         37.2         39.0         38.7         38.8         32.3         39.1         35.3           10         35.6         33.8         39.2         38.0         35.7         38.2         41.2           11         36.3         35.7         31.9         34.4         33.6         39.3         34.6           12         35.6         38.0         37.1         40.5         35.5         36.1         34.7           13         36.6         36.0         41.9         36.2         38.7         41.3         40.1           14         39.5         35.2         36.5         34.8         38.1         33.0         40.9           15         34.4         34.5         35.8         42.1         39.2         39.3         35.3           16         42.9         35.7         34.9         35.0         3					-			-
7         42.4         33.3         40.7         31.8         35.4         38.8         36.5           8         37.2         36.8         37.0         35.1         24.4         37.2         37.3           9         37.2         39.0         38.7         38.8         32.3         39.1         35.3           10         35.6         33.8         39.2         38.0         35.7         38.2         41.2           11         36.3         35.7         31.9         34.4         33.6         39.3         34.6           12         35.6         38.0         37.1         40.5         35.5         36.1         34.7           13         36.6         36.0         41.9         36.2         38.7         41.3         40.1           14         39.5         35.2         36.5         34.8         38.1         33.0         40.9           15         34.4         34.5         35.8         42.1         39.2         39.3         35.3           16         42.9         35.7         34.9         35.0         38.7         35.1         39.7           17         34.8         34.8         33.8         37.8		-	-		=			
8         37.2         36.8         37.0         35.1         24.4         37.2         37.3           9         37.2         39.0         38.7         38.8         32.3         39.1         35.3           10         35.6         33.8         39.2         38.0         35.7         38.2         41.2           11         36.3         35.7         31.9         34.4         33.6         39.3         34.6           12         35.6         38.0         37.1         40.5         35.5         36.1         34.7           13         36.6         36.0         41.9         36.2         38.7         41.3         40.1           14         39.5         35.2         36.5         34.8         38.1         33.0         40.9           15         34.4         34.5         35.8         42.1         39.2         39.3         35.3           16         42.9         35.7         34.9         35.0         38.7         35.1         39.7           17         34.8         34.8         33.8         37.8         39.1         37.3         36.7           18         38.4         40.8         39.6         33.6		-	-		-			
9         37.2         39.0         38.7         38.8         32.3         39.1         35.3           10         35.6         33.8         39.2         38.0         35.7         38.2         41.2           11         36.3         35.7         31.9         34.4         33.6         39.3         34.6           12         35.6         38.0         37.1         40.5         35.5         36.1         34.7           13         36.6         36.0         41.9         36.2         38.7         41.3         40.1           14         39.5         35.2         36.5         34.8         38.1         33.0         40.9           15         34.4         34.5         35.8         42.1         39.2         39.3         35.3           16         42.9         35.7         34.9         35.0         38.7         35.1         39.7           17         34.8         34.8         33.8         37.8         39.1         37.3         36.7           18         38.4         40.8         39.6         33.6         34.7         40.2         40.7           19         32.0         35.7         34.7         35.9 <td></td> <td>.=</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		.=						
10         35.6         33.8         39.2         38.0         35.7         38.2         41.2           11         36.3         35.7         31.9         34.4         33.6         39.3         34.6           12         35.6         38.0         37.1         40.5         35.5         36.1         34.7           13         36.6         36.0         41.9         36.2         38.7         41.3         40.1           14         39.5         35.2         36.5         34.8         38.1         33.0         40.9           15         34.4         34.5         35.8         42.1         39.2         39.3         35.3           16         42.9         35.7         34.9         35.0         38.7         35.1         39.7           17         34.8         34.8         33.8         37.8         39.1         37.3         36.7           18         38.4         40.8         39.6         33.6         34.7         40.2         40.7           19         32.0         35.7         34.7         35.9         32.7         40.9         33.3           20         35.2         41.6         36.6         33.1 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
11         36.3         35.7         31.9         34.4         33.6         39.3         34.6           12         35.6         38.0         37.1         40.5         35.5         36.1         34.7           13         36.6         36.0         41.9         36.2         38.7         41.3         40.1           14         39.5         35.2         36.5         34.8         38.1         33.0         40.9           15         34.4         34.5         35.8         42.1         39.2         39.3         35.3           16         42.9         35.7         34.9         35.0         38.7         35.1         39.7           17         34.8         34.8         33.8         37.8         39.1         37.3         36.7           18         38.4         40.8         39.6         33.6         34.7         40.2         40.7           19         32.0         35.7         34.7         35.9         32.7         40.9         33.3           20         35.2         41.6         36.6         33.1         34.3         42.1         30.6           21         34.5         37.8         39.0         34.0 <td>-</td> <td>****</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	-	****						
12         35.6         38.0         37.1         40.5         35.5         36.1         34.7           13         36.6         36.0         41.9         36.2         38.7         41.3         40.1           14         39.5         35.2         36.5         34.8         38.1         33.0         40.9           15         34.4         34.5         35.8         42.1         39.2         39.3         35.3           16         42.9         35.7         34.9         35.0         38.7         35.1         39.7           17         34.8         34.8         33.8         37.8         39.1         37.3         36.7           18         38.4         40.8         39.6         33.6         34.7         40.2         40.7           19         32.0         35.7         34.7         35.9         32.7         40.9         33.3           20         35.2         41.6         36.6         33.1         34.3         42.1         30.6           21         34.5         37.8         39.0         34.0         37.2         36.4         38.6           22         33.0         43.0         36.9         29.7 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>41.2</td>								41.2
13         36.6         36.0         41.9         36.2         38.7         41.3         40.1           14         39.5         35.2         36.5         34.8         38.1         33.0         40.9           15         34.4         34.5         35.8         42.1         39.2         39.3         35.3           16         42.9         35.7         34.9         35.0         38.7         35.1         39.7           17         34.8         34.8         33.8         37.8         39.1         37.3         36.7           18         38.4         40.8         39.6         33.6         34.7         40.2         40.7           19         32.0         35.7         34.7         35.9         32.7         40.9         33.3           20         35.2         41.6         36.6         33.1         34.3         42.1         30.6           21         34.5         37.8         39.0         34.0         37.2         36.4         38.6           22         33.0         43.0         36.9         29.7         25.1         36.6         38.7           23         32.0         31.2         41.6         26.3 <td>11</td> <td>36.3</td> <td>35.7</td> <td>31.9</td> <td>34.4</td> <td></td> <td>39.3</td> <td>34.6</td>	11	36.3	35.7	31.9	34.4		39.3	34.6
14         39.5         35.2         36.5         34.8         38.1         33.0         40.9           15         34.4         34.5         35.8         42.1         39.2         39.3         35.3           16         42.9         35.7         34.9         35.0         38.7         35.1         39.7           17         34.8         34.8         33.8         37.8         39.1         37.3         36.7           18         38.4         40.8         39.6         33.6         34.7         40.2         40.7           19         32.0         35.7         34.7         35.9         32.7         40.9         33.3           20         35.2         41.6         36.6         33.1         34.3         42.1         30.6           21         34.5         37.8         39.0         34.0         37.2         36.4         38.6           22         33.0         43.0         36.9         29.7         25.1         36.6         38.7           23         32.0         31.2         41.6         26.3         30.5         35.2         -           24         -         32.3         -         26.7	12	35.6	38.0	37.1	40.5	35.5	36.1	34.7
15         34.4         34.5         35.8         42.1         39.2         39.3         35.3           16         42.9         35.7         34.9         35.0         38.7         35.1         39.7           17         34.8         34.8         33.8         37.8         39.1         37.3         36.7           18         38.4         40.8         39.6         33.6         34.7         40.2         40.7           19         32.0         35.7         34.7         35.9         32.7         40.9         33.3           20         35.2         41.6         36.6         33.1         34.3         42.1         30.6           21         34.5         37.8         39.0         34.0         37.2         36.4         38.6           22         33.0         43.0         36.9         29.7         25.1         36.6         38.7           23         32.0         31.2         41.6         26.3         30.5         35.2         -           24         -         32.3         -         26.7         -         31.5         -	13	36.6	36.0	41.9	36.2	38.7	41.3	40.1
16         42.9         35.7         34.9         35.0         38.7         35.1         39.7           17         34.8         34.8         33.8         37.8         39.1         37.3         36.7           18         38.4         40.8         39.6         33.6         34.7         40.2         40.7           19         32.0         35.7         34.7         35.9         32.7         40.9         33.3           20         35.2         41.6         36.6         33.1         34.3         42.1         30.6           21         34.5         37.8         39.0         34.0         37.2         36.4         38.6           22         33.0         43.0         36.9         29.7         25.1         36.6         38.7           23         32.0         31.2         41.6         26.3         30.5         35.2         -           24         -         32.3         -         26.7         -         31.5         -	14	39.5	35.2	36.5	34.8	38.1	33.0	40.9
17         34.8         34.8         33.8         37.8         39.1         37.3         36.7           18         38.4         40.8         39.6         33.6         34.7         40.2         40.7           19         32.0         35.7         34.7         35.9         32.7         40.9         33.3           20         35.2         41.6         36.6         33.1         34.3         42.1         30.6           21         34.5         37.8         39.0         34.0         37.2         36.4         38.6           22         33.0         43.0         36.9         29.7         25.1         36.6         38.7           23         32.0         31.2         41.6         26.3         30.5         35.2         -           24         -         32.3         -         26.7         -         31.5         -	15	34.4	34.5	35.8	42.1	39.2	39.3	35.3
18     38.4     40.8     39.6     33.6     34.7     40.2     40.7       19     32.0     35.7     34.7     35.9     32.7     40.9     33.3       20     35.2     41.6     36.6     33.1     34.3     42.1     30.6       21     34.5     37.8     39.0     34.0     37.2     36.4     38.6       22     33.0     43.0     36.9     29.7     25.1     36.6     38.7       23     32.0     31.2     41.6     26.3     30.5     35.2     -       24     -     32.3     -     26.7     -     31.5     -	16	42.9	35.7	34.9	35.0	38.7	35.1	39.7
19         32.0         35.7         34.7         35.9         32.7         40.9         33.3           20         35.2         41.6         36.6         33.1         34.3         42.1         30.6           21         34.5         37.8         39.0         34.0         37.2         36.4         38.6           22         33.0         43.0         36.9         29.7         25.1         36.6         38.7           23         32.0         31.2         41.6         26.3         30.5         35.2         -           24         -         32.3         -         26.7         -         31.5         -	17	34.8	34.8	33.8	37.8	39.1	37.3	36.7
20     35.2     41.6     36.6     33.1     34.3     42.1     30.6       21     34.5     37.8     39.0     34.0     37.2     36.4     38.6       22     33.0     43.0     36.9     29.7     25.1     36.6     38.7       23     32.0     31.2     41.6     26.3     30.5     35.2     -       24     -     32.3     -     26.7     -     31.5     -	18	38.4	40.8	39.6	33.6	34.7	40.2	40.7
21     34.5     37.8     39.0     34.0     37.2     36.4     38.6       22     33.0     43.0     36.9     29.7     25.1     36.6     38.7       23     32.0     31.2     41.6     26.3     30.5     35.2     -       24     -     32.3     -     26.7     -     31.5     -	19	32.0	35.7	34.7	35.9	32.7	40.9	33.3
22     33.0     43.0     36.9     29.7     25.1     36.6     38.7       23     32.0     31.2     41.6     26.3     30.5     35.2     -       24     -     32.3     -     26.7     -     31.5     -	20	35.2	41.6	36.6	33.1	34.3	42.1	30.6
23     32.0     31.2     41.6     26.3     30.5     35.2     -       24     -     32.3     -     26.7     -     31.5     -	21	34.5	37.8	39.0	34.0	37.2	36.4	38.6
24 - 32.3 - 26.7 - 31.5 -	22	33.0	43.0	36.9	29.7	25.1	36.6	38.7
	23	32.0	31.2	41.6	26.3	30.5	35.2	-
10-12     36.2     37.1     35.3     38.4     35.1     37.4     34.7       14-16     39.5     35.2     35.5     38.0     39.2     38.0     37.6	24	-	32.3	-	26.7	-	31.5	-
10-12     36.2     37.1     35.3     38.4     35.1     37.4     34.7       14-16     39.5     35.2     35.5     38.0     39.2     38.0     37.6		•						
14-16 39.5 35.2 35.5 38.0 39.2 38.0 37.6	10-12	36.2	37.1	35.3	38.4	35.1	37.4	34.7
	14-16	39.5	35.2	35.5	38.0	39.2	38.0	37.6

85th %ile (ALL)	37.5
Weekday Inter Deak	36.8

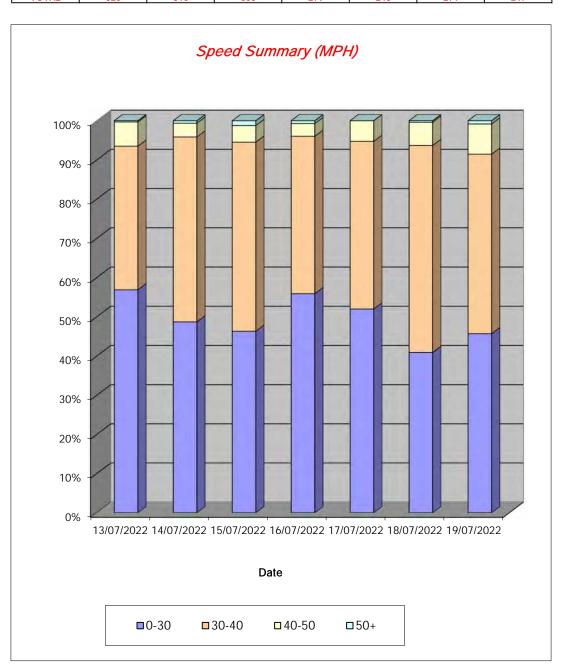
Produced by Road Data Services Ltd.

Channel 1 - Northeastbound

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Week 1

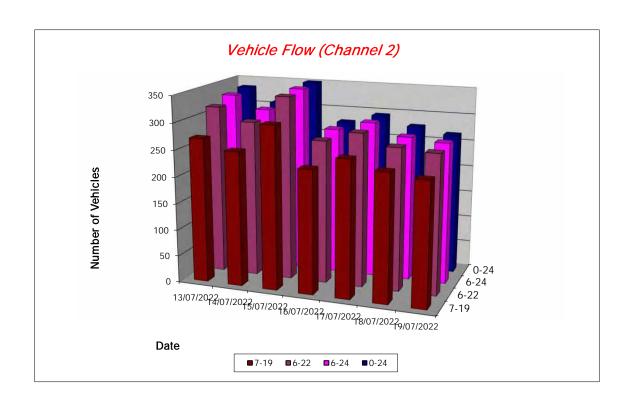
	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Speed (MPH)	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
0-30	185	154	153	156	129	111	113
30-40	119	149	159	112	106	143	113
40-50	20	11	14	9	13	16	19
50+	1	2	4	2	0	1	2
TOTAL	325	316	330	279	248	271	247



Channel 2 - Southwestbounc Vehicle Flow Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022	Weekday	
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Average	Average
1	3	0	0	0	0	2	0	1	1
2	0	1	0	1	1	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	1	0	0	0
5	1	0	0	0	0	0	0	0	0
6	1	1	2	0	0	3	1	2	1
7	4	6	2	1	1	4	3	4	3
8	14	9	15	7	7	10	18	13	11
9	20	19	24	16	4	23	14	20	17
10	26	21	24	27	16	26	28	25	24
11	22	14	29	37	36	21	15	20	25
12	28	23	23	23	23	11	18	21	21
13	14	23	25	18	25	20	17	20	20
14	25	20	19	17	21	16	25	21	20
15	15	21	28	19	27	18	12	19	20
16	24	25	29	13	27	25	23	25	24
17	36	31	34	19	27	26	17	29	27
18	25	17	33	15	25	29	26	26	24
19	22	29	22	20	17	13	17	21	20
20	15	17	12	19	16	13	10	13	15
21	14	13	15	10	8	6	8	11	11
22	13	5	10	7	7	5	10	9	8
23	8	10	3	7	3	4	2	5	5
24	4	2	1	1	3	1	2	2	2

7-19	271	252	305	231	255	238	230	259	255
6-22	317	293	344	268	287	266	261	296	291
6-24	329	305	348	276	293	271	265	304	298
0-24	334	307	350	277	294	277	266	307	301



#### Produced by Road Data Services Ltd.

Channel 2 - Southwestbounc

#### Average Speed

Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
1	31.9	-	-	-	-	33.8	-
2	-	34.8	-	39.2	31.3	-	-
3	-	-	-	-	-	-	-
4	-	ī	-	-	-	31.1	-
5	35.1	0	-	-	-	-	-
6	28.8	27.8	25.7	-	-	28.7	21.3
7	27.0	31.6	31.0	33.8	31.8	31.8	31.2
8	28.4	32.5	28.9	29.9	25.9	29.2	28.2
9	29.1	28.6	27.8	28.0	30.1	27.8	29.4
10	29.5	26.1	29.5	29.9	26.8	30.8	30.1
11	29.9	31.0	27.1	28.9	28.4	29.0	26.3
12	28.8	28.5	28.0	27.9	25.6	26.1	28.4
13	28.0	27.4	28.3	30.3	27.0	28.5	29.9
14	28.8	28.1	28.7	28.8	28.7	31.1	28.6
15	25.1	30.3	29.7	30.5	31.1	31.5	30.1
16	24.8	28.4	31.3	29.5	29.5	29.3	31.4
17	30.6	30.9	29.0	29.4	29.0	31.5	34.4
18	29.5	28.3	30.0	28.0	28.9	30.4	32.9
19	29.7	30.4	30.4	27.0	28.3	33.7	30.2
20	28.1	29.5	30.7	25.0	27.7	32.7	27.2
21	26.4	27.7	30.8	27.3	32.2	28.8	28.0
22	27.5	36.5	31.0	28.9	26.6	21.4	27.8
23	25.6	31.5	27.4	28.7	31.3	27.4	37.2
24	38.6	22.5	28.4	22.6	23.4	30.1	31.0
		·					

29.3

30.1	30.3	50.2	31.0
28.7	28.4	29.9	29.9
		-	-

#### Channel 2 - Southwestbounc

29.3

28.6

0-24

Average (ALL)	29.1
Weekday Inter-Peak	28.8
Eth Dorcontile	

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
1	39.8	-	-	-	-	38.9	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	29.3	-	-	37.6	-
7	34.8	34.9	33.6	-	-	36.8	37.9
8	34.6	36.7	35.4	33.3	31.2	33.6	34.9
9	35.6	35.0	34.1	32.4	39.1	33.0	36.4
10	35.1	32.4	34.9	35.5	31.2	36.8	35.3
11	34.5	35.9	33.0	34.1	32.4	33.0	30.8
12	34.5	33.8	33.8	32.7	30.6	33.0	33.3
13	33.8	32.6	34.6	35.8	33.1	34.1	35.0
14	34.8	33.0	34.5	32.7	35.7	39.9	35.4
15	33.9	35.5	34.4	38.7	36.0	37.0	35.5
16	31.3	33.1	37.9	34.0	35.3	34.7	37.6
17	37.2	37.5	34.1	37.4	34.8	37.5	39.2
18	37.1	33.9	35.1	33.9	34.2	37.0	40.3
19	34.1	37.3	36.0	32.6	33.4	39.1	35.6
20	31.0	34.0	34.8	31.2	34.5	36.8	33.9
21	34.3	33.6	38.3	32.4	40.4	37.2	30.3
22	31.3	41.0	38.1	33.8	31.6	27.6	37.0
23	30.8	36.6	29.0	35.0	38.0	31.9	37.7
24	49.6	25.5	-	-	32.0	-	31.7
10-12	34.6	34.7	33.3	33.6	31.9	33.3	32.3
14-16	32.4	34.4	36.3	37.1	35.7	35.8	37.0
0-24	35.2	35.2	35.2	34.6	34.3	36.2	36.3

85th %ile (ALL)	35.3
Wookday Inter Deak	310

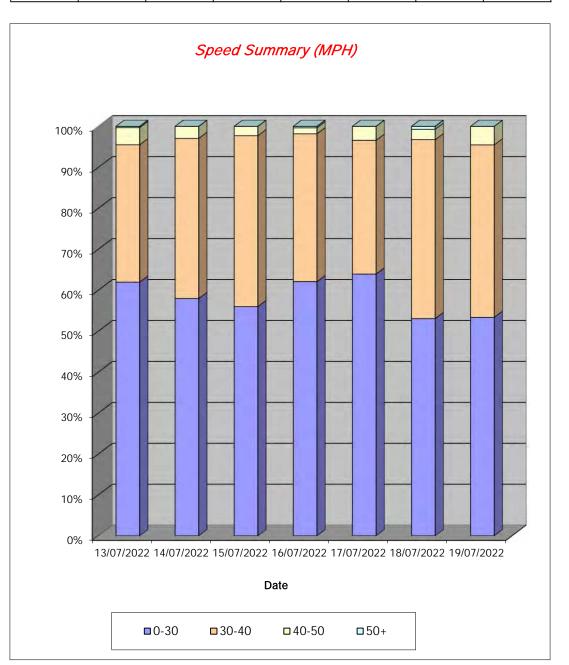
Produced by Road Data Services Ltd.

Channel 2 - Southwestbounc

**Speed Summary** 

Week 1

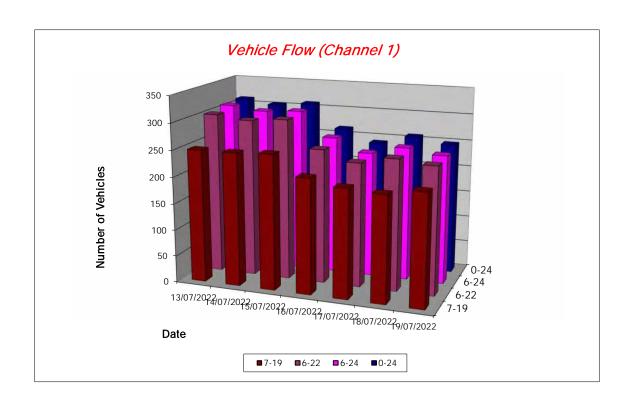
	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Speed (MPH)	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
0-30	207	178	196	172	188	147	142
30-40	112	120	146	100	96	121	112
40-50	14	9	8	4	10	7	12
50+	1	0	0	1	0	2	0
TOTAL	334	307	350	277	294	277	266



Channel 1 - Northeastbound Vehicle Flow Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022	Weekday	
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Average	Average
1	1	0	1	0	3	0	0	0	1
2	0	0	0	2	2	1	0	0	1
3	0	0	0	1	0	0	1	0	0
4	1	0	0	0	0	1	0	0	0
5	0	1	0	0	0	0	0	0	0
6	0	0	2	1	0	5	5	2	2
7	10	8	8	2	1	8	4	8	6
8	28	23	19	9	3	14	24	22	17
9	34	31	30	20	10	24	24	29	25
10	21	18	21	21	21	22	15	19	20
11	20	20	16	20	17	12	22	18	18
12	18	17	18	29	23	21	11	17	20
13	13	20	21	21	22	12	27	19	19
14	17	23	27	18	17	16	19	20	20
15	15	21	21	16	22	18	15	18	18
16	20	24	20	21	20	12	14	18	19
17	21	16	18	19	14	21	12	18	17
18	20	20	25	11	21	17	14	19	18
19	23	17	17	11	14	10	13	16	15
20	19	15	17	19	8	16	10	15	15
21	15	15	18	6	14	14	6	14	13
22	9	8	6	9	6	9	9	8	8
23	5	4	3	6	2	2	2	3	3
24	1	2	1	2	1	3	1	2	2

7-19	250	250	253	216	204	199	210	232	226
6-22	303	296	302	252	233	246	239	277	267
6-24	309	302	306	260	236	251	242	282	272
0-24	311	303	309	264	241	258	248	286	276



#### Produced by Road Data Services Ltd.

Channel 1 - Northeastbound

#### Average Speed

Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
1	29.8	-	34.0	-	24.1	-	-
2	-	-	-	22.1	26.1	15.9	-
3	-	-	-	30.4	-	-	20.7
4	17.0	-	-	-	-	29.3	-
5	-	5.9	-	-	-	-	-
6	-	-	23.2	19.4	-	26.5	29.7
7	27.6	26.8	27.8	26.6	25.1	25.8	26.2
8	26.5	28.2	27.3	27.1	22.2	25.7	26.2
9	26.1	27.6	26.4	21.9	23.2	26.9	25.8
10	25.1	23.5	26.2	24.2	23.8	25.1	25.6
11	23.5	23.3	22.1	25.1	24.2	23.6	23.0
12	24.9	23.5	23.8	27.0	23.1	24.7	22.8
13	24.7	25.4	27.6	25.5	25.1	25.5	24.9
14	25.7	21.8	22.3	25.7	26.0	25.0	26.6
15	26.2	23.5	26.0	25.9	24.2	26.4	25.1
16	25.4	23.6	25.8	25.9	25.0	24.6	27.0
17	24.1	25.4	24.8	24.2	25.3	23.6	26.5
18	25.2	26.4	26.1	23.3	25.4	24.6	28.7
19	25.6	24.5	25.3	20.3	23.6	26.4	23.0
20	19.5	24.4	23.9	24.3	23.7	24.3	26.5
21	24.2	25.7	25.0	21.5	25.8	23.9	24.9
22	21.5	24.8	27.9	25.0	19.8	26.3	24.8
23	25.1	26.9	28.9	22.1	23.8	26.1	22.8
24	27.1	24.3	22.3	22.4	29.3	27.8	25.1

25.4

24.7

•	
Average (ALL)	25.0

#### Channel 1 - Northeastbound

24.9

30.5

24.9

0-24

	WCCKddy IIICI-I	C
<b>R5th</b>	Percentile	

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
1	-	-	- 1	-	26.4	-	-
2	-	-	-	22.5	26.7	-	-
3	-	=	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	24.5	-	-	32.9	33.3
7	33.4	31.4	32.7	29.4	-	33.9	27.3
8	32.8	31.6	31.4	32.3	23.5	29.2	32.9
9	32.0	33.0	31.2	29.8	26.5	31.7	29.9
10	29.9	29.0	30.7	29.9	29.5	31.6	31.7
11	30.9	27.0	26.3	28.5	30.1	30.4	28.1
12	29.8	29.1	28.3	34.3	28.8	30.1	28.0
13	29.7	29.4	32.1	31.0	30.1	33.0	32.5
14	31.4	26.6	28.0	29.9	30.8	29.4	34.1
15	30.8	29.1	30.7	33.9	30.2	31.7	30.1
16	32.6	29.4	30.3	29.6	28.3	28.4	32.1
17	30.5	28.8	28.1	31.1	30.9	28.7	30.6
18	31.2	31.8	31.7	27.6	29.6	31.8	34.5
19	29.5	29.6	31.1	25.7	27.1	33.9	27.4
20	27.5	32.7	29.2	28.9	29.2	29.4	30.0
21	28.7	31.5	31.1	24.5	31.4	30.5	29.5
22	27.6	31.6	32.3	29.1	27.4	29.1	27.8
23	29.6	28.6	33.6	25.4	24.3	28.5	23.5
24	-	26.0	-	24.6	-	28.0	-

85th %ile (ALL)	30.7
Wookday Inter Deak	20.0

29.6

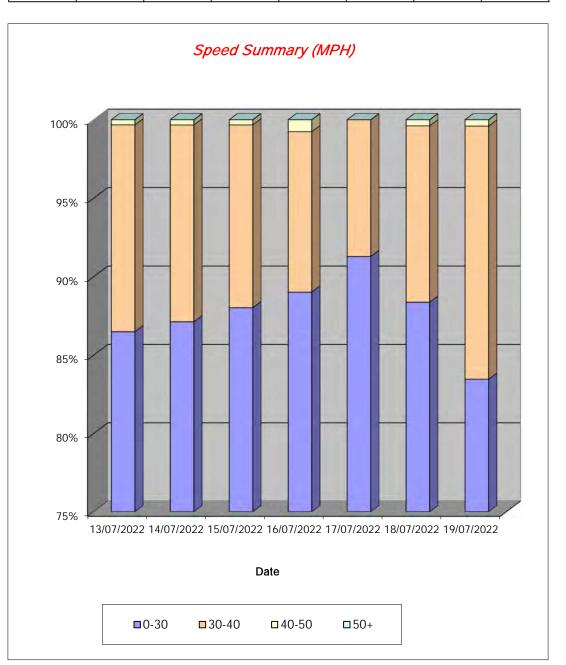
Produced by Road Data Services Ltd.

Channel 1 - Northeastbound

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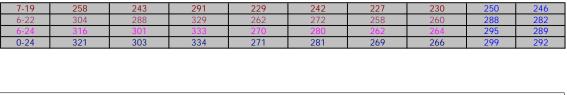
Week 1

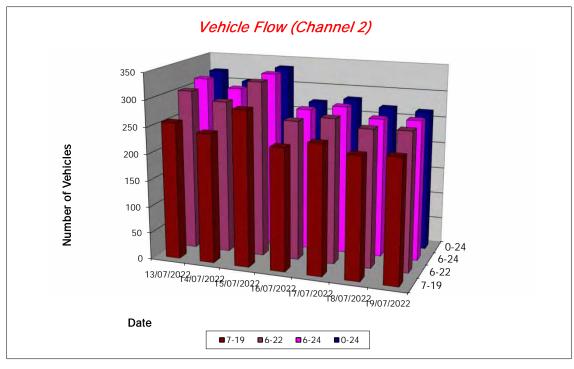
	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Speed (MPH)	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
0-30	269	264	272	235	220	228	207
30-40	41	38	36	27	21	29	40
40-50	1	1	1	2	0	1	1
50+	0	0	0	0	0	0	0
TOTAL	311	303	309	264	241	258	248



Channel 2 - Southwestbound Vehicle Flow Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022	Weekday	
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Average	Average
1	3	0	0	0	0	2	0	1	1
2	0	1	0	1	1	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	1	0	0	0
5	1	0	0	0	0	0	0	0	0
6	1	1	1	0	0	4	2	2	1
7	4	6	3	1	1	5	3	4	3
8	14	9	12	7	5	8	16	12	10
9	18	18	18	13	4	21	13	18	15
10	25	21	24	27	17	27	26	25	24
11	23	14	29	39	33	20	16	20	25
12	25	23	23	24	20	9	21	20	21
13	13	22	25	19	24	19	19	20	20
14	23	18	18	18	21	15	28	20	20
15	15	21	26	19	26	18	12	18	20
16	22	24	29	12	27	25	22	24	23
17	37	26	30	20	24	24	17	27	25
18	23	19	35	16	24	28	26	26	24
19	20	28	22	15	17	13	14	19	18
20	15	20	10	14	15	12	8	13	13
21	14	14	15	10	8	8	8	12	11
22	13	5	10	8	6	6	11	9	8
23	8	11	3	7	5	3	2	5	6
24	4	2	1	1	3	1	2	2	2





#### Produced by Road Data Services Ltd.

Channel 2 - Southwestbounc

#### Average Speed

Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
1	28.3	-	-	-	-	22.5	-
2	-	26.6	-	35.6	21.2	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	25.1	-
5	33.5	-	-	-	-	-	-
6	27.3	22.8	23.3	-	-	25.8	27.6
7	26.5	27.4	25.8	26.5	28.3	27.3	28.3
8	24.2	27.6	27.8	22.3	22.2	24.2	24.6
9	25.2	25.3	24.1	24.8	22.0	23.8	27.0
10	25.2	21.5	25.3	24.8	22.1	25.8	26.3
11	23.8	27.2	23.9	23.9	24.2	24.0	18.4
12	23.6	24.6	24.2	24.3	25.7	22.4	22.5
13	24.9	23.6	24.6	25.8	23.4	25.6	24.1
14	24.8	24.8	22.2	26.1	24.7	26.2	20.7
15	22.6	25.6	25.9	24.8	26.9	25.4	25.2
16	21.4	24.9	26.6	25.9	23.5	24.0	27.6
17	26.1	27.4	26.1	24.1	24.6	26.9	28.8
18	25.2	24.1	24.5	22.8	25.8	25.7	26.1
19	25.3	26.6	24.2	26.6	24.3	29.1	24.5
20	25.1	23.6	27.1	25.5	24.9	26.6	24.0
21	25.1	24.4	27.4	24.4	27.0	24.5	25.0
22	23.9	29.0	27.3	22.4	21.7	18.4	23.6
23	23.3	26.5	25.1	23.5	20.2	25.2	27.3
24	33.0	23.5	28.9	20.9	25.8	29.9	30.2

10-12	23.7	25.6	24.0	24.1	24.8	23.5	20.8
14-16	21.9	25.3	26.3	25.2	25.2	24.6	26.7
0-24	24.7	25.2	25.2	24.7	24.5	25.2	24.7

# Weekday Inter-Peak 85th Percentile

#### Channel 2 - Southwestbounc

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
1	33.2	-	-	-	-	28.3	=
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	=	-	-	-	-	-
5	-	1	-	-	-	-	-
6	-	1	-	-	-	32.0	27.8
7	31.7	32.0	29.5	-	-	31.1	32.8
8	29.2	31.3	34.0	25.2	26.6	26.9	30.9
9	29.2	31.0	29.4	28.6	25.9	30.6	32.3
10	30.9	28.1	30.6	29.6	27.9	30.9	30.7
11	29.2	32.0	29.1	29.6	28.9	28.4	24.6
12	29.0	30.5	29.4	28.8	30.7	26.9	28.5
13	30.4	27.7	30.2	30.6	28.4	30.5	31.6
14	31.2	29.2	27.9	30.3	30.3	31.6	28.7
15	29.6	29.9	30.9	29.9	32.1	30.4	31.5
16	27.3	29.5	32.4	31.2	27.9	29.3	32.4
17	31.6	32.6	31.1	30.9	29.3	32.3	33.0
18	29.5	29.5	29.5	29.7	30.8	31.5	31.4
19	30.3	31.3	28.8	31.3	28.8	31.6	29.6
20	29.9	28.7	31.0	31.1	28.1	29.8	28.4
21	29.9	30.3	34.2	28.4	31.8	30.0	28.5
22	29.4	31.8	33.4	26.6	25.5	21.6	31.2
23	30.4	30.0	27.5	26.3	25.4	29.1	27.4
24	41.4	24.0	-	-	32.5	-	30.3

.9	29.6	30.6	31.2
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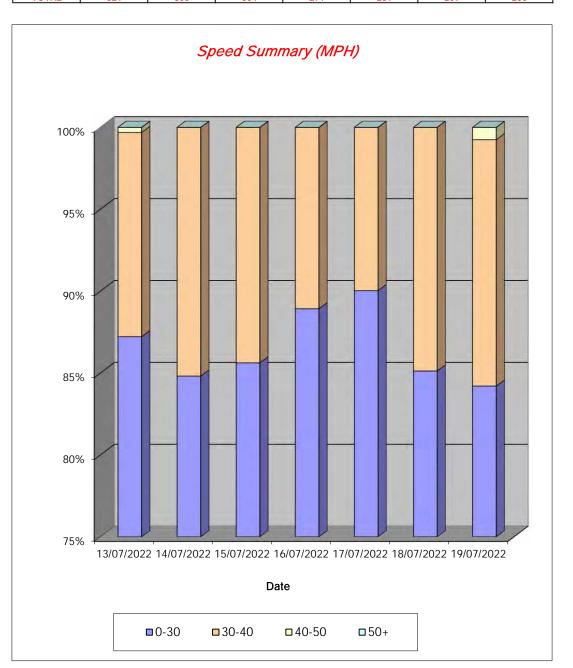
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Channel 2 - Southwestbounc

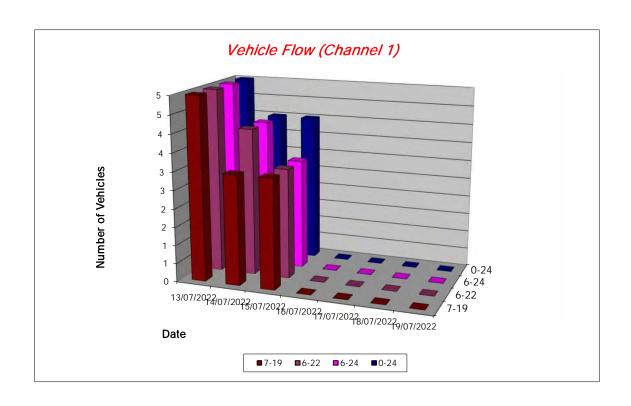
**Speed Summary** 

Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Speed (MPH)	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
0-30	280	257	286	241	253	229	224
30-40	40	46	48	30	28	40	40
40-50	1	0	0	0	0	0	2
50+	0	0	0	0	0	0	0
<u> </u>	•	•	•	•			
TOTAL	321	303	334	271	281	269	266



	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022	Weekday	
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Average	Average
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	1	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	1	0	0	0	0	0	0	0	0
9	1	0	3	0	0	0	0	1	1
10	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0
13	0	1	0	0	0	0	0	0	0
14	0	1	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0
17	1	0	0	0	0	0	0	0	0
18	1	0	0	0	0	0	0	0	0
19	1	1	0	0	0	0	0	1	1
20	0	1	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
7-19	5	3	3	0	0	0	0	4	4
6-22	5	4	3	0	0	0	0	4	4
6-24	5	4	3	0	0	0	0	4	4
0-24	5	4	4	0	0	0	0	4	4



#### Produced by Road Data Services Ltd.

Channel 1 - Southbound

#### Average Speed

Week 1

Hr Ending	13/07/2022 Wednesday	14/07/2022 Thursday	15/07/2022 Friday	16/07/2022 Saturday	17/07/2022 Sunday	18/07/2022 Monday	19/07/2022 Tuesday
1	-	-	- I mady	- Suturuay	- Junuary	- worlday	- rucsuay
2	-	-	_	-	-	-	-
3	-	-	-	-	-	_	-
4	-	_	-	-	-	_	-
5	-	-	-	-	-	-	-
6	-	-	8.6	-	-	-	-
7	-	-	-	-	-	-	-
8	5.9	-	-	-	-	-	-
9	8.4	-	7.8	-	-	-	-
10	-	-	-	-	-	-	=
11	-	·	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	13.4	-	-	-	-	-
14	-	5.5	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
17	6.0	-	-	-	-	-	-
18	7.7	-	-	-	-	-	-
19	9.9	8.9	-	-	-	-	-
20	-	5.2	-	-	-	-	=
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-

14-	16	-	-	-	-	-	-	-
0-2	24	7.6	8.2	8.0	-	-	-	-

#### Channel 1 - Southbound

Average (ALL)	7.9
Weekday Inter-Peak	-
85th Percentile	

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	=	-	-	-	=	=
5	-	-	-	-	-	=	=
6	-	1	-	-	-	=	=
7	=	-	-	-	=	=	=
8	-	ı	-	-	-	-	ī
9	-	ī	8.6	-	-	=	-
10	-	ī	-	-	-	-	-
11	-	1	-	-	-	-	-
12	-	1	-	-	-	-	-
13	-	-	-	-	-	=	=
14	-	ī	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	1	-	-	-	-	-
17	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-
10-12	-	-	-	-	-	-	-

85th %ile (ALL)	10.1
Wookday Inter Dook	

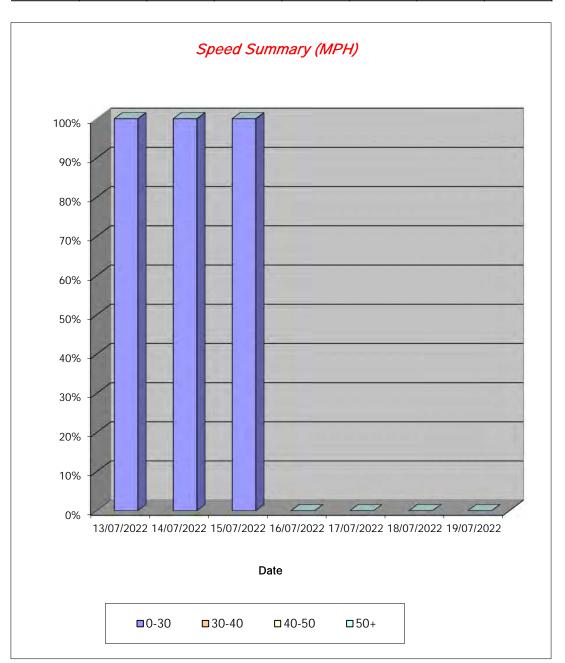
Produced by Road Data Services Ltd.

Channel 1 - Southbound

**Speed Summary** 

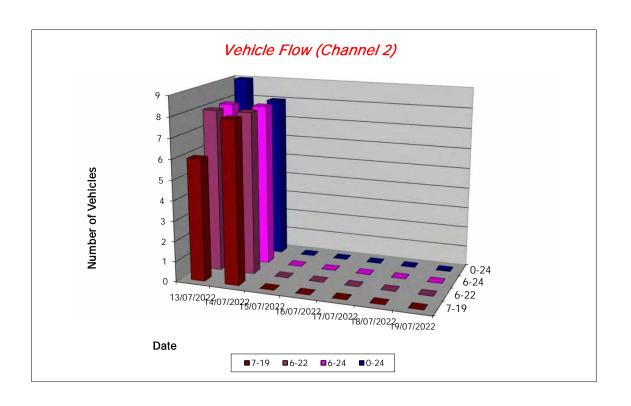
Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Speed (MPH)	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
0-30	5	4	4	0	0	0	0
30-40	0	0	0	0	0	0	0
40-50	0	0	0	0	0	0	0
50+	0	0	0	0	0	0	0
	•	•	•	•		•	•
TOTAL	5	4	4	0	0	0	0



Channel 2 - Northbounc	Vehicle Flow	Week 1
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Hr Ending   Wednesday   Thursday   Friday   Saturday   Sunday   Monday   Tuesday   Average   Average   1		12/07/2022	1.4/07/2022	15/07/2022	1//07/2022	17/07/2022	10/07/2022	10/07/2022	10/	ı
1         1         1         0	The Freedom								_	
2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		wednesday	,		,	,	_	,	,	
3         0		1								
4         0					-		_	-		
5         0									_	
6         0										
7         0					-	-	-	-		
8         1         0										
9         0										
10         0         5         0         0         0         0         0         2         2           11         0         1         0         0         0         0         0         0         0           12         0         1         0	8	1	0	0	0	0	0	0	0	0
11         0         1         0	9	0	0	0	0	0	0	0	0	0
12         0         1         0		0	5	0	0	0	0	0	2	2
13         0	11	0	1	0	0	0	0	0	0	0
14         0	12	0	1	0	0	0	0	0	0	0
15         0	13	0	0	0	0	0	0	0	0	0
16         0	14	0	0	0	0	0	0	0	0	0
17         2         1         0         0         0         0         0         1         1           18         2         0         0         0         0         0         0         1         1           19         1         0         0         0         0         0         0         0         0         0           20         2         0 <td>15</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td>	15	0	0	0	0	0	0	0	0	0
18         2         0         0         0         0         0         1         1           19         1         0         0         0         0         0         0         0         0           20         2         0	16	0	0	0	0	0	0	0	0	0
19         1         0	17	2	1	0	0	0	0	0	1	1
20         2         0         0         0         0         0         1         1           21         0	18	2	0	0	0	0	0	0	1	1
21         0         5         5         5         6         6         22         8         8         0         0         0         0         0         0         5         5         5         6         6         24         8         8         0         0         0         0         0         0         5	19	1	0	0	0	0	0	0	0	0
22     0     0     0     0     0     0     0       23     0     0     0     0     0     0     0     0       24     0     0     0     0     0     0     0     0       7-19     6     8     0     0     0     0     0     5     5       6-22     8     8     0     0     0     0     0     5     5       6-24     8     8     0     0     0     0     0     5     5	20	2	0	0	0	0	0	0	1	1
23         0         5         5         5         6         6         22         8         8         0         0         0         0         0         0         5         5         5         6         6         24         8         8         0         0         0         0         0         0         5         6         2         4         8         8         0         0         0         0         0         0         0	21	0	0	0	0	0	0	0	0	0
24         0         5         5         5         6         6         22         8         8         0         0         0         0         0         0         5         5         5         6         24         8         8         0         0         0         0         0         5         5         5         5         5         5         6         24         8         8         0         0         0         0         0         0         5         5         5         5         6         24         8         8         0         0         0         0         0         0         0         5         5         5         5         6         24         8         8         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 </td <td>22</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td>	22	0	0	0	0	0	0	0	0	0
7-19         6         8         0         0         0         0         5         5           6-22         8         8         0         0         0         0         0         5         5           6-24         8         8         0         0         0         0         0         5         5	23	0	0	0	0	0	0	0	0	0
6-22         8         8         0         0         0         0         5         5           6-24         8         8         0         0         0         0         5         5	24	0	0	0	0	0	0	0	0	0
6-22         8         8         0         0         0         0         5         5           6-24         8         8         0         0         0         0         5         5										
6-24 8 8 0 0 0 0 0 5 5	7-19	6	8	0	0	0	0	0	5	5
6-24 8 8 0 0 0 0 0 5 5	6-22	8	8	0	0	0	0	0	5	5
0-24 9 8 0 0 0 0 0 6 6	6-24	8	8	0	0	0	0	0	5	5
	0-24	9	8	0	0	0	0	0	6	6



#### Produced by Road Data Services Ltd.

Channe	12-	Nor	th	bounc
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#### Average Speed

Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
1	7.2	-	-	-	-	-	1
2	=	=	-	-	-	-	-
3	-	-	-	-	-	-	ī
4	-	-	-	-	-	-	ī
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	ı
8	6.2	-	-	-	-	-	1
9	-	-	-	-	-	-	-
10	=	7.0	-	-	-	-	-
11	-	5.8	-	-	-	-	-
12	-	5.3	-	-	-	-	ı
13	-	-	-	-	-	-	
14	-	-	-	-	-	-	ī
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	ı
17	6.4	6.7	-	-	-	-	-
18	8.0	-	-	-	-	-	ī
19	5.4	-	-	-	-	-	-
20	8.6	=	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-

ı	10-12	-	5.6	4	-	-	-	-
	14-16	-	-	-	-	-	-	-
1	0-24	7.2	6.6	-	-	-	-	-

Average (ALL)	6.9						
Weekday Inter-Peak	5.6						
85th Percentile							

#### Channel 2 - Northbounc

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Hr Ending	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
1	-	-	-	-	-	-	-
2	-	=	-	-	-	-	-
3	-	ш	-	=	=	-	=
4	-	i	i	-	-	-	ī
5	-	-	ı.	-	-	-	-
6	-	II.	ı ı	-	-	-	
7	-	ш	-	=	=	-	-
8	-	i	i	-	-	-	1
9	-	-	ı.	=	=	-	-
10	-	8.8	in .	-	-	-	
11	-	i	i	-	-	-	ī
12	-	=	-	-	-	-	=
13	-	-	ı.	=	=	-	-
14	-	ı.	ii.	-	-	-	
15	-	ı	-	-	-	-	ī
16	-	-	-	-	-	-	-
17	7.5	ī	ī	-	-	-	-
18	9.7	i	i	-	-	-	ı
19	-	-	-	-	-	-	-
20	8.8	i	·	-	-	-	1
21	-	-	-	-	-	-	-
22	-	i	÷	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-

10-12	-	5.9	-	-	-	-	-
14-16	-	-	-	-	-	-	-
0-24	8.7	8.1	-	-	-	-	-

85th %ile (ALL)	8.4
Weekday Inter Deak	5.0

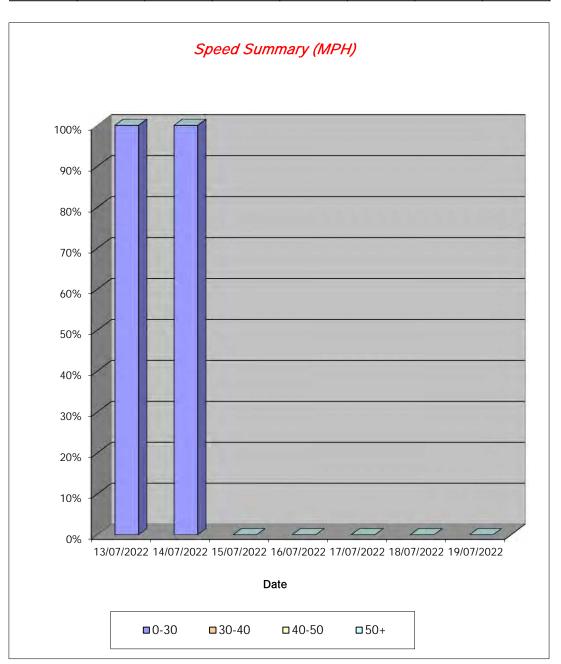
Produced by Road Data Services Ltd.

Channel 2 - Northbounc

c.	pee	40	11122	m	100
ગ	pee	<b>.</b> .	um	HIC	ну

Week 1

	13/07/2022	14/07/2022	15/07/2022	16/07/2022	17/07/2022	18/07/2022	19/07/2022
Speed (MPH)	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
0-30	9	8	0	0	0	0	0
30-40	0	0	0	0	0	0	0
40-50	0	0	0	0	0	0	0
50+	0	0	0	0	0	0	0
TOTAL	9	8	0	0	0	0	0



# **APPENDIX BGH 6**



LEEDS T 0113 246 1555

LONDON T0203 5532336

Sulte E15 | Josephs Well Hanover Walk | LEEDS | LS3 1AB E transportleeds@bryanghall.co.uk



Do not scale from this drawing, use figured dimensions only. It is the contractors responsibility to check and verify all dimensions on site. Any discrepancies to be reported immediately. IF IN DOUBT ASK.

Bryan G Hall Limited has not checked or verified, and shall therefore not be liable for any inaccuracles which may be attributable to any base plan(s) reports, data or information provided by the client, or purchased by the consultant on the client's behalf, that may have been utilised within this drawing.

Size: A3 - 420 x 297

FOR INFORMATION

Chkd: GB

Appvd: GB

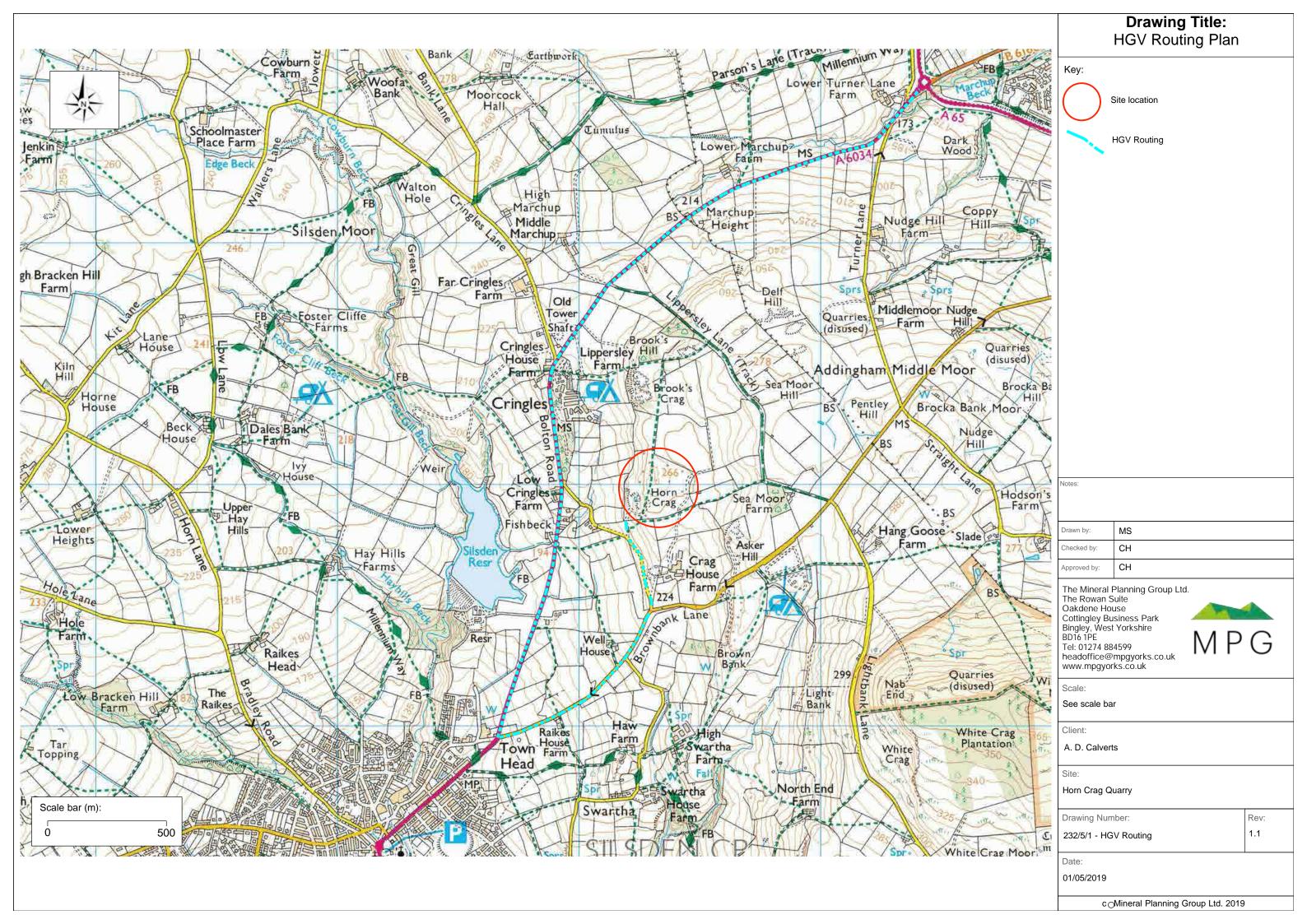
Project:

HORN CRAG QUARRY, BRADFORD

21/207/LOC/002 21-207

Revision: -Date: 26.04.2021

# **APPENDIX BGH 7**



#### Bryan G Hall Limited

Registered in England & Wales Co No: 4104802 VAT No: 399 4601 07

Website: www.bryanghall.co.uk Em ail: transportleeds@bryanghall.co.uk

#### Registered Office

Suite E15, Joseph's Well Hanover Walk Leeds, LS3 1AB

Leeds: 0113 246 1555London: 0203 553 2336

