

Proposed Sandstone Quarry

Gayles, North Yorkshire

Transport Statement prepared on behalf of Stainton Quarry Ltd

December 2021



Proposed Sandstone Quarry, Gayles, North Yorkshire

Project No:

MTP Ref: 19-220-N

Document

Reference No:

Document Title:

Transport Statement

Date:

November 2019

Client Name:

Stainton Quarry Ltd

Project Manager:

Gary Clark

Author:

Benjamin Pollard

Produced By:

Milestone Transport Planning Limited

Abbey House, 282 Farnborough Road, Farnborough, Hants GU14 7NA - Tel: 01483 397888 Gateshead IBC, Mulgrave Terrace, Gateshead, Tyne & Wear, NE8 1AN - Tel: 0191 3387220

Email: mail@milestonetp.co.uk
Web: www.milestonetp.co.uk

Document history and status

	Date	Description	Prepared By	Checked By	Authorised By
First Issue	03/12/2021	Transport Statement	B. Pollard/ A. Wreford	G. Clark	D. Kitchener
Final	24/12/2021	Transport Statement	A. Wreford	G. Clark	D. Kitchener

CONTENTS

1.	Introducti	on and Scope	
	Introduction	٦	1
	Pre-applica	tion Discussions	3
		eport	
2.	Baseline C	Conditions & Site Accessibility	5
	The Applica	ation Site	5
	Local Highv	vay Network	6
		S	
	Road Safety	/ Analysis	16
		Travel	
3.	Proposed	Development, Traffic Generation & Traffic Impact	21
	The Scheme	e	21
		perational Details	
		ingements	
		lities and Staff Travel	
		eration & Impact	
4.	Proposed	Mitigation Measures	26
5.	Summary	& Conclusion	28
	Tables		
	Table 2.1	Baseline Traffic Flows – AADT, Peak Periods and 24 hour Mean Speed	14
	Table 2.2	Baseline Traffic Flows – Mean Speeds	15
	Table 2.3	PIC Summary	17
	Appendic	es	
	Appendix 1	Proposed Development	
	Appendix 2	Tank Road Images	
	Appendix 3	PIC Data	
	Appendix 4	Proposed Verge Hardening – Sturdy House Lane Bridge	

1. Introduction and Scope

Introduction

- 1.1 This Transport Statement (TS) has been prepared by Milestone Transport Planning Ltd (MTP) on behalf of Stainton Quarry Ltd (SQL) to consider the highway and transportation implications of extracting block sandstone and walling/ landscaping stone from Gayles Quarry, Gayles, North Yorkshire. The site has been quarried in the past but is not worked at present.
- 1.2 The site is situated northwest of Richmond and lies approximately 1km southeast of Gayles village, 1.9km southwest of Ravensworth and just north of Feldom military ranges, as indicated on Figure 1.

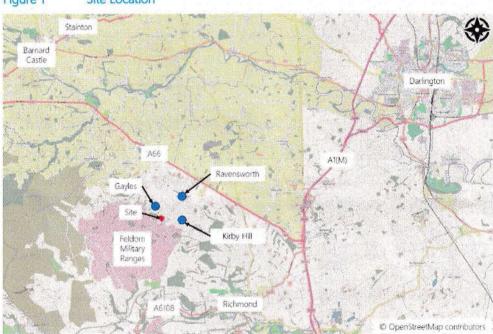
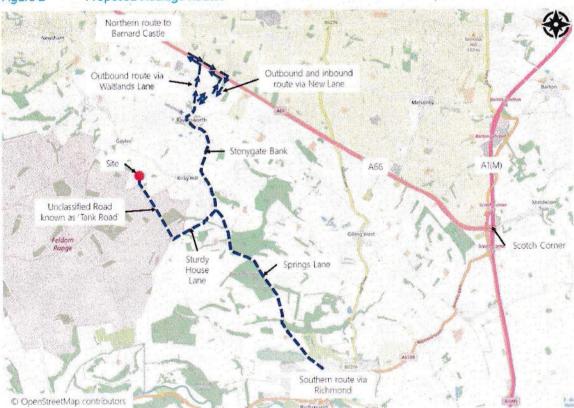


Figure 1 Site Location

- 1.3 Gayles Quarry is a disused quarry which holds substantial reserves of quality gritstone. The quarry is bounded by agricultural land uses to the north, west and south and to the east by a minor rural road, which separates the site from a residential dwelling and further agricultural land uses.
- 1.4 The proposed development, shown on in Appendix 1, involves quarrying for 225,000 tonnes of block sandstone and walling/ landscaping stone over a 15-year period. The block will be exported to the SQL stone cutting plant at Stainton near Barnard Castle. As a secondary process, stone waste from quarrying will be processed on site to produce a mix of walling/ landscaping stone, which will be exported to the wider construction market. Remaining waste materials, spoil and overburden will be retained on site for use in restoration.
- 1.5 15,000 tonnes per annum (tpa) will be exported, although some variations between the proportions of block stone and walling/ landscaping stone is anticipated over the life of the quarry. It is not expected that significant import of material will be required, although small quantities of cohesive materials could be needed at times and, if so, will be back hauled to avoid additional vehicle journeys.

- 1.6 Rolling restoration of the quarry will take place throughout the works period using site won materials.
- 1.7 The quarry will operate Monday to Friday between the hours of 08:00 and 18:00 and on a Saturday morning between the hours of 08:00 and 13:00 when required. For assessment purposes a conservative approach has been taken that the quarry will operate 48 weeks per year, five days per week.
- 1.8 Staffing at the quarry will typically be four people, plus HGV drivers.
- 1,9 All export of block sandstone and walling/ landscaping stone will be undertaken on HGVs with a maximum load of 20 tonnes. Based on the anticipated export quantities, four laden vehicles per day will leave the site on average, although to reflect the natural variations in production from the quarry, which will be worked in three main phases, the following HGV allowance is proposed:
 - Block sandstone
 2 laden per day average / 3 laden per day maximum
 - Walling/landscaping stone 2 laden per day average / 3 laden per day maximum
 - Overall maximum
 5 laden per day (10 vehicle movements two-way)
- 1.10 Block sandstone will be exported to Stainton via the A66, with walling / landscaping stone being exported on a southerly route via Richmond. This splitting of the export routes further dilutes the already very low activity levels across the main highway network. The proposed access routes are shown on Figure 2.

Figure 2 Proposed Haulage Routes



Pre-application Discussions

- 1.11 To inform the scope of the TS, the applicant has undertaken extensive pre-application discussions with the Local Highway Authority, North Yorkshire County Council (NYCC) under reference NY/2019/0034/PRE, and with Highways England, now known as National Highways (NH). This included a Stage 1 pre-application information report prepared by R&K Wood Planning in December 2018.
- Discussions with NYCC during the pre-application stage have comprised a formal pre-application response (dated 1st March 2019), email exchanges with the Highways and Transport team and an on-site meeting with the Highways Officer to discuss routeing from the site and appropriate mitigation measures. The key highways and transportation matters raised by NYCC during the pre-application process are as follows:
 - The proposal is acceptable in principle and supported by National and Local policy;
 - A Transport Statement is required to assess the movement of HGVs to and from the site along the rural roads and access onto the A66;
 - Potential for damage to the largely unsurfaced Tank Road from the site to Sturdy House Lane will need to be addressed;
 - Impact on a bridge crossing of a watercourse on Sturdy House Lane and its suitability to carry twoway traffic will need to be considered, and;
 - A set of mitigation measures for the haul road will need to be agreed to address NYCC concerns regarding the above.
- 1.13 Discussions with NH resulted in a formal Technical Memorandum response (30th March 2020) to a Transport Scoping Note prepared by MTP in February 2020. For reference, the key recommendations include:
 - The TS should provide confirmation of the proposed staff numbers and shift pattens to be adopted;
 - AADT flows for the A66 in the vicinity of Waitlands Lane and New Lane should be obtained and incorporated into the assessments as necessary;
 - Road safety assessments of the Waitlands Lane and New Lane junctions with the A66 will require
 consideration of Personal Injury Collisions using the most recent 5-year period of data, for a section of
 the A66 within 100m radius of the junction centre, and;
 - Where existing safety issues are identified, a risk assessment will be required which appropriately
 quantifies the expected change in user risk associated with the development proposals being
 implemented. Depending on the outcomes of any risk assessment, mitigation works may need to be
 identified.
- 1.14 It is worth noting that since the initial submission of pre-application documents to NYCC and NH, the proposed number of HGVs and routeing via local junctions on the A66 have significantly changed. The current proposals focus only on exporting modest quantities of two main products from the site (block and walling/ landscaping stone) with other materials now to be retained on site and used within screening and restoration.

- 1.15 For reference, the original HGV numbers used in the pre-application discussions and revised HGV numbers presented within this TS are summarised as follows:
 - Original HGV movements at pre-application stage (100% north via A66)

Average daily activity
 18veh/day (9 in / 9 out)

Maximum daily activity
 48veh/day (24 in / 24 out).

Revised HGV movements within the application (50% north via A66)

Average daily activity
 Maximum daily activity
 8veh/day (4 in / 4 out)
 10veh/day (5in / 5 out).

- It can be seen that the applicant has responded positively to concerns raised at pre-application stage and amended the proposals to reduce average activity by over 50% overall and by almost 80% via the A66 junctions to the north. Maximum activity has been reduced by almost 80% overall and by almost 90% via the A66 junctions. The changes have partly been made with a view to alleviating highway authority concerns by reducing traffic to a level where impact on the main highway network cannot be seen as significant within normal day-to-day fluctuations of traffic associated with the surrounding residential, agricultural, commercial and military uses together with normal through traffic flows in the area. This then leaves the key issue as the agreement of measures to be introduced to facilitate HGV use of the minor roads on the access route to the site (Tank Road and Sturdy House Lane).
- 1.17 On the basis of the above, this TS will seek to address the highways and transportation comments raised by NYCC and NH and propose a number of mitigation measures based on the revised, and significantly reduced, HGV movements.

Scope of Report

- 1.18 Based upon the scheme details, as proposed, the TS will include the following:
 - · Details of the site and surrounding area;
 - Traffic survey results;
 - · A review of the most recent 5 years of accident data for the highway network in the vicinity of the site;
 - Details of the proposed development, including access arrangements;
 - A trip generation assessment;
 - Details of proposed mitigation measures and proposed operational highway strategy, and;
 - Summary and conclusions.

Baseline Conditions & Site Accessibility 2.

The Application Site

- 2.1 The 5.5ha application site is predominantly the former Gayles Quarry, which is located in a rural setting just north of the Feldom military ranges and south of the village of Gayles. The site lies northwest of an unclassified road (U1095) from which it is currently accessed via a gated track towards the northeast corner of the site. The track is also a public right of way (PROW) known as footpath ref: 20.32 that runs from east to west through the northern section of the quarry.
- 2.2 The area surrounding the site sits on high ground that predominantly comprises agricultural land, moorland, forest plantations and the Feldom military ranges. A single residential property, known as Quarry House, is located on the U1095 opposite the site at it's northeast corner. A further property (Grove Hill House) is located around 300m southeast of the site and is also accessed from the U1095.
- 2.3 The location local site context and its position in the wider highway network are shown in Figures 3 & 4 respectively.

Figure 3 Site Context



Local Highway Network Figure 4 To Barnard Castle Waitlands Lane New Lane Ravensworth Gayles Flats Bank To Darlington Stonygate Teesside / Priest Gill Bank Slip Inn U1095 Stonygate Bank Kirby Hill U1095 Tank Road Springs Foldom Sturdy Ranges To Richmond O OpenStreetMap contributors

Local Highway Network

U1095 Tank Road

- 2.4 The existing gated access to the former Gayles Quarry is from the U1095, an unclassified rural single-track road that runs for approximately 2.2km from a crossroads junction with Slip Inn Bank/ Priest Gill Bank/ Flats Bank to the northeast of the site to a priority T-junction with Sturdy House Lane to the southeast.
- 2.5 The section of the U1095 along the southeastern boundary of the site is a surfaced single track rural road and runs on a significant gradient down to the minor crossroads junction to the north, which has a very constrained layout. From here, Slip Inn Bank and Priest Gill Bank are part of the C41, a minor rural road that passes through Gayles to the west and Kirby Hill to the east, beyond which it extends to Stonygate Bank. Flats Bank extends north to Ravensworth as a single track unclassified road and is signed as being unsuitable for HGVs. Overall, the gradients and constrained layout of the existing highway routes to the north of the quarry access make the routes unsuitable for HGVs accessing the proposed quarry. Therefore, this part of the highway network is not considered further in this TS and the focus is on the southern section of the U1095, which is the only viable access road.
- The section of the U1095 running southeast to Sturdy House Lane is understood to be locally referred to as the 'Tank Road'. Figure 5 illustrates the general characteristics of Tank Road through images taken during a site visit in June 2020. The images are shown at larger scale in Appendix 2. Figure 6 focusses on the southeast end of the route in the vicinity of Sturdy House Lane.

Existing bridleway ref 20.39 U1095 Tank Road Existing footpath ref 20.73 Main access point to Ranges Sturdy House Lane

Figure 5 General Characteristics of Tank Road

Approximate end of fully bound road surface Watercourse crossing Area of carriageway widening to facilitate military vehicle access to Ranges Main access point to Feldom Ranges U1095 Tank Road Cattle grid Sturdy House Farm Sturdy Source: Google Earth

Figure 6 Tank Road in the Vicinity of Sturdy House Lane

- 2.7 In general terms, the 1.6km route to the site is described below, working from Sturdy House Lane towards the site to match Figure 5.
 - The Tank Road meets Sturdy House Lane at a wide priority junction adjacent to Sturdy House Farm, as shown in Figure 7.
 - The first 350m of the Tank Road from Sturdy House Lane to a watercourse crossing has a fully bound (or concrete) surface. Northwest of the watercourse to the site the surface is a mix of bound and unbound surfacing and is broken up in places, making sections of the route only passable by 4x4 vehicles or military/ agricultural vehicles.
 - There is a cattle grid on the Tank Road around 30m from the Sturdy House Lane junction. A further cattle grid is located around 1.1km from Sturdy House Lane, as indicated on Figure 5.
 - Accesses to the Feldom ranges are generally signed and there are flagpoles where flags are flown to indicate when there is activity on the ranges.

- A 50m section of the Tank Road has been significantly widened at the main access to the Feldom ranges, which is around 250m from Sturdy House Lane – see Figure 8. The remainder of the route is generally single track, although there are regular widenings at gateways/ accesses along the route that provide opportunities for vehicles to pass.
- Along the Tank Road there are multiple accesses to Feldom ranges, a bridleway that meets the road, a residential access and general agricultural accesses. It is not known whether activity on the ranges ever closes the Tank Road, although this is only likely to be for short periods if it occurs.





Figure 8 Access to Feldom Ranges (Looking Southeast)



Overall, the U1095 Tank Road is a rural road that is generally single track and is a mix of surfaced and 2.8 unsurfaced sections. It provides access to Feldom military ranges, agricultural premises and a residential property and the surfacing on parts of the route would restrict through traffic to 4x4s, military vehicles and agricultural vehicles. The route could also be used by leisure walkers, off-road cyclists and equestrians accessing the rural PROW network.

U1105 Sturdy House Lane

- U1105 Sturdy House Lane is an unclassified road that runs in a generally northeast/ southwest direction 2.9 for approximately 3.7km between Stonygate Bank (northeast) and Feldom Lane (southwest). The Tank Road meets Sturdy House Lane approximately 1.2km southwest of Stonygate Bank. As shown in Figure 2, the proposed haul route is northeast to Stonygate Bank and this is the section of interest for this TS.
- Sturdy House Lane on the route to Stonygate Bank is of rural character and is wide enough for two-way 2.10 traffic (width varies 4-5.5m), except at a watercourse crossing mid-way along the route, as illustrated on Figure 9. At the crossing the road bends through trees and drops down to a single track bridge crossing with stone parapets. Visibility to oncoming traffic on the opposite side of the crossing is limited by trees and undergrowth on the approaches. It is understood that the bridge does not have a weight restriction, although in pre-application discussions NYCC has raised concerns of damage to the bridge from HGVs accessing the quarry.





There are a number of agricultural premises and residential dwellings that take direct access from Sturdy 2.11 House Lane, which meets Stonygate Bank at a priority junction.

- 2.12 It is worth noting that to the southwest of the junction with the Tank Road, Sturdy House Lane continues in similar character to Feldom Lane, which links to Hurgill Road around 4.5km northwest of Richmond.

 There is a further main access to Feldom ranges from Sturdy House Lane around 2.3km southwest of the Tank Road junction.
- 2.13 Overall, U1105 Sturdy House Lane is an unclassified minor rural road that is generally suitable for two-way traffic and serves surrounding military, agricultural and residential uses.

C41 Springs Lane/ Whashton Road/ Gallowgate

- 2.14 C41 Springs Lane/ Whashton Road/ Gallowgate is the main highway route from the Sturdy House Lane junction to the A6108 in Richmond.
- 2.15 From the Sturdy House Lane junction, Springs Lane is a rural single carriageway road with a marked centre line that runs southeast, becoming Whashton Road after 1km and continuing on a fairly direct route to the outskirts of the built-up area of Richmond. Whashton Road serves some peripheral residential estates of the town before becoming Gallowgate, a good standard urban road with a 30mph speed limit that runs on a significant downhill gradient to a signal-controlled junction in the centre of Richmond.
- 2.16 Gallowgate is a main route through the northern area of Richmond and serves a mix a uses, including the town's main industrial estate, residential estates, a fire station and a golf course.

C41/ C1112 Stonygate Bank/ Waitlands Lane

- 2.17 C41/ C112 Stonygate Bank and Waitlands Lane form the northern section of the overall highway route between Richmond and the A66. From the Sturdy House Lane junction, Stonygate Bank runs northwards as a rural single carriageway road with a marked centre line to the outskirts of Ravensworth village, where it becomes Waitlands Lane. There are some local physical restrictions and features along the route (bends, etc), which are generally signed.
- 2.18 Waitlands Lane is subject to a 30mph speed limit through Ravensworth, where it follows a meandering route, with the zone continuing for about 500m north of the main village to Ravensworth Nurseries just north of the junction with New Lane. Through the 30mph zone the majority of residential development is set back from the carriageway, which has no footways or lighting. Facilities in the village include a pub and a primary school.
- Just south of Ravensworth Nurseries, Waitlands Lane meets New Lane which becomes the main through route, with the northern section of Waitlands Lane being signed for 'local traffic' and accessed via a priority junction. North of the access to Ravensworth Nurseries, and some adjacent residential properties, Waitlands Lane reverts to a derestricted speed limit and continues north to the A66 as a minor rural road. It is worth noting that there is no right turn into Waitlands Lane from the A66 and left turns will be for access only as any through traffic travelling from the A66 in the east will use the New Lane junction to the east. Similarly, any through traffic wishing to travel eastbound on the A66 will naturally use the New Lane junction. Therefore, the northern section of Waitlands Lane accommodates predominantly northbound traffic, most of which will be turning left to join the A66 westbound.

2.20 Waitlands Lane meets the A66 on a single carriageway section with 50mph speed limit at a simple priority junction adjacent to the Ravensworth Lodge residential property. The junction has a taper on the west side to assist large vehicles joining the A66 westbound flow.

New Lane

- 2.21 As noted above, the majority of through traffic between Ravensworth and A66 will follow the main route via New Lane, which extends for 1.1km from Waitlands Lane junction, initially within the 30mph zone then becoming derestricted on the frontage of the Ravensworth Nurseries site.
- 2.22 New Lane has a carriageway width of c.5.5m and serves a delivery/ service access to the nurseries and a caravan park on route to the A66, which it meets on the same single carriageway 50mph section as the Waitlands Lane junction.
- 2.23 New Lane joins the A66 at a simple priority junction where all movements are permitted. The junction has nearside kerbline tapers that could assist large vehicles turning, particularly left out of the junction. These are hatched out to avoid them being in normal use for turning manoeuvres.
- 2.24 There is a minor access to Foxwell Farm and associated residential properties on the north side of the A66 opposite the New Lane junction.

A66

- 2.25 The A66 is a strategic road managed by NH. In the vicinity of the New Lane and Waitlands Lane junctions, the A66 is single carriageway and also provides direct access to a number of private properties/ premises, including Mainsgill farm shop (opposite the Moor Lane junction), Foxwell Farm, Fox Grove residential property and Fox Hall Inn and associated car park and residential property.
- 2.26 There are dualled sections of the A66 approximately 1.6km to the east and 2.7km to the west of the New Lane junction.
- 2.27 During the spring of 2020, NH completed a programme of highway works on this stretch of the A66, which is understood to have included the introduction of the 50mph speed limit, resurfacing and renewal/improvement of signs and road markings. An aim of the scheme was understood to be to improve road safety.
- 2.28 It is worth noting that NH is currently progressing with a program of works to upgrade sections of the A66 between the M6 at Penrith and A1 at Scotch Corner. The scheme is known as the A66 Northern Trans-Pennine Route Upgrade. It is understood that the public consultation phase has recently ended and the start of the construction work is anticipated to be 2024, subject to planning. The key aims of the scheme are to:
 - Improve safety by reducing accidents;
 - Reduce congestion and increase capacity;
 - Improve connectivity and provide more reliable journeys;
 - Boost the economy and better links to tourist hot-spots, and;
 - Reconnect communities.

2.29 In the vicinity of the New Lane and Waitlands Lane junctions, the improvement scheme to be implemented is known as 'Stephen Bank to Carkin Moor'. The preferred option is to create a dual-carriageway route that runs to the north of the existing route, with the old road being downgraded to become the local access road, as illustrated on Figure 10. In future, this would mean vehicles currently using the New Lane and Waitlands Lane junctions that want to access the A66 will travel to a newly created all-movements grade separated junction at Moor Lane a short distance east of New Lane.

Rokeby

Fig. 16d

Scotch Corner

Special Application and Ispace

Similar Application and Ispace

Proposed Application and Ispace

Pr

Figure 10 A66 Northern Trans-Pennine Highways Improvement Scheme – Local Context

2.30 Overall, the proposed 'Stephen Bank to Carkin Moor' improvement would improve access to the A66.

Summary

2.31 In summary, the highway network on the proposed haulage routes is of generally rural character, except within Richmond and Ravensworth, and is of mixed standard reducing towards the site from good standard single carriageways to minor unclassified rural roads that are partially unsurfaced in the direct vicinity of the site.

Traffic Flows

Local Highway Network

- 2.32 Traffic surveys were conducted between Thursday 28th November and Wednesday 4th December 2019 using Automatic Traffic Counters (ATCs) to obtain the baseline traffic flows on the proposed main haulage routes shown in Figure 2. These are taken to remain a reasonable proxy of normal traffic patterns.
- 2.33 Data was collected at seven locations on the proposed haulage routes, as illustrated on Figure 11.
- 2.34 Results for all surveys are summarised in Table 2.1, which highlights 5 and 7 day AADT flows and AM/PM peak flows.
- 2.35 The surveys also recorded speed data, although the results were not summarised into formal outputs.

 For information, the range of mean speeds recorded at each survey location in each direction is shown in Table 2.2.

Waitlands
Lane

New Lane

Stornygate
Bank

Stornygate
Bank

Springs
Lane

Springs
Lane

Springs
Lane

Springs
Co OpenStreetMap contributors

Figure 11 Automatic Traffic Count Locations

Table 2.1 Baseline Traffic Flows – AADT, Peak Periods and 24 hour Mean Speed

Road Link	5-Day AADT	7-Day AADT	5-Day Localised AM Peak Flows	5-Day Localised PM Peak Flows	Mean HGVs in 5-day AADT
Waitlands Lane	170	160	18 (08:00-09:00)	21 (15:00-16:00)	10
New Lane	690	660	70 (08:00-09:00)	57 (15:00-16:00)	43
Waitlands Lane (Ravensworth Village)	867	817	89 (08:00-09:00)	77 (15:00-16:00)	50
Stonygate Bank	711	669	60 (08:00-09:00)	70 (15:00-16:00)	34
Springs Lane	1,017	949	82 (08:00-09:00)	88 (15:00-16:00)	28
Sturdy House Lane	152	142	16 (08:00-09:00)	16 (15:00-16:00)	6
U1095 Tank Road	13	12			0
and the second s					

Table 2.2 Baseline Traffic Flows – Mean Speeds

Road Link	Mean Speed		
Waitlands Lane	26-30mph — Northbound, 33-37mph — Southbound		
New Lane	38-40mph – Northbound, 32-34mph – Sauthbound		
Waitlands Lane (Ravensworth Village)	30-32mph – Northbound, 30-32mph – Southbound		
Stonygate Bank	30-31mph – Northbound, 34-36mph – Southbound		
Springs Lane	38-40mph – Northbound, 39-41mph – Southbound		
Sturdy House Lane	31-42mph – Northbound, 25-33mph – Southbound		
U1095 Tank Road			

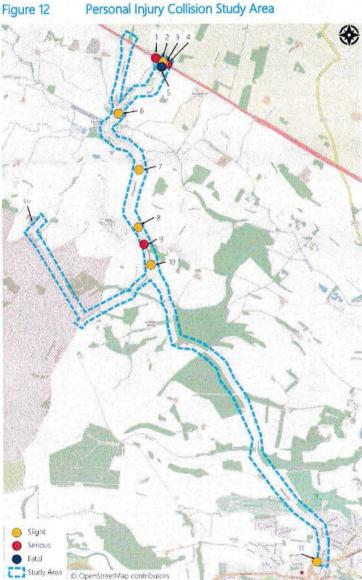
- 2.36 In summary, the current traffic flows on the local highway network are low, with existing two-way taffic flows on haulage routes (excluding Tank Road) between 150 1,017veh/day. Peak hour flows ranged from 16 89veh two-way. These flows are well within the capacity of the highway network.
- 2.37 All routes carried HGVs except the Tank Road, which carried less than 15veh/day in total during the surveys. Mean daily HGV flows ranged from 6/day on Sturdy House Lane to 50/day on Waitlands Lane. It is worth noting that the surveys were undertaken in late November/ December when agricultural activity is expected to be low. The ATC on the Tank Road also confirmed there was no significant military activity during the survey period. Therefore, it is reasonable to assume that HGV activity in the area could be significantly higher than surveyed at times of peak agricultural/ military activity.
- 2.38 Mean vehicle speeds at the count locations are in the range 26-42mph. The speeds are well within the posted speed limits (generally derestricted) except to the north of the built-up area of Ravensworth, where recorded mean speeds of 30-32mph are very slightly above the local 30mph limit.
- 2.39 Overall, the surveys do not suggest any significant capacity or speed issues on the local highway network, which carries modest traffic flows, including approximately 3-6% HGVs.

Strategic Highway Network

- 2.40 The nearest Department for Transport (DfT) traffic count data for the A66 is 2km west of the A1 Scotch Corner junction and 5km east of the New Lane junction (count point ref.26628). Given that there are no major junctions between the count point and New Lane then this counter gives a broad indication of flows where development traffic would join the A66.
- 2.41 The counter shows 2019 AADT flows (pre-Covid) on the A66 of 18,592veh/day, including 3,025 HGVs.
- 2.42 As a check, data for count point ref.73432, located 9km east of New Lane, was also reviewed and gives identical traffic flow data, suggesting that DfT do not expect significant changes in traffic flows between the two count locations.
- 2.43 Overall, the traffic data confirms that the A66 is a well trafficked single carriageway in the vicinity of New Lane/ Waitlands Lane and carries a significant HGV flow.

Road Safety Analysis

- Personal Injury Collision (PIC) data has been assessed based on available data from the 'Crashmap' 2.44 database (www.crashmap.co.uk) for the period 2016 – 2020 (inclusive). This 5-year period is more than normally required for a TS but matches the NH request in relation to assessment of the A66 junctions. The review covered the main haulage routes on the local highway network, as illustrated on Figure 12. In total, data was obtained for approximately 14.5km of the highway network which included:
 - A section of road along the frontage of the quarry and the Tank Road;
 - Sturdy House Lane to the northeast of Tank Road;
 - Stonygate Bank, Waitlands Lane, New Lane, including junctions with the A66; and
 - Springs Lane, Whashton Road, Gallowgate and the A6108 / Gallowgate junction in Richmond.



- 2.45 In total, 11 PICs occurred in the study area, of which seven were 'slight', three serious and one 'fatal'.
- 2.46 The fatal collision occurred at the A66/ New Lane junction, as did two of the serious incidents and two of the slight incidents. One collision occurred on Waitlands Lane to the north of the built-up area of Ravensworth and four collisions occurred on Stonygate Bank between Ravensworth and Sturdy House Lane. One collision occurred on the A6108 just west of the junction with Gallowgate.
- 2.47 Other than the cluster of incidents at the A66/ New Lane junction the collisions were all at different locations spread along the route between Sturdy House Lane and the A66. There were no collisions on the Tank Road, which is the access road the site, Sturdy House Lane or on the 5.5km route from Sturdy House Lane to the A6108 in Richmond.
- 2.48 The PIC data is summarised in Table 2.3 and the corresponding data is attached as Appendix 3.

Table 2.3 PIC Summary

PIC Ref	Date / Time	Severity	Conditions	Road Type / Speed Limit / Junction	Vehicles Involved	Description
1	20.03.16 / 14:15	Serious	Daylight / Fine / Dry	Single / 60 / N/A	Car / Car / Car	A collision between the front of V1, the offside of V2 and the front of V3.
2	11.09.17 / 10:26	Slight	Daylight / Fine / Dry	Single / 60 / T- junction	Car / Car	V1 failed to give way to V2.
3	03.11.17 / 15:38	Slight	Daylight / Fine / Dry	Single / 60 / T-junction	Car / Car	V1 failed to give way to V2.
4	02.03.17 / 16:14	Serious	Daylight / Fine / Dry	Single / 60 / T- junction	Goods Veh > 1.5t/ Goods Veh > 7.5t/ Goods Veh > 7.5t	GV1 collided with rear of GV2, pushing GV2 into GV3.
5	22.03.19 / 09:46	Fatal	Daylight / Fine / Dry	Single / 60 / T- junction	Car / Goods Vehicle >7.5t	A collision between V1 in act the of turning right and GV1.
6	07.07.19 / 00:32	Slight	Darkness / Lit / Dry	Single / 30 / N/A	Car	V1 lost control and collided with a wall or fence.
7	23.01.19 / 11:45	Slight	Daylight / Fine / Wet	Single / 60 / N/A	Car / Pedestrian	V1 collided with pedestrian walking along carriageway with back to traffic.
8	11.09.16 / 16:19	Slight	Daylight / Fine / Dry	Single / 60 / T- junction	Car / Car	V1 on a left hand bend, V2 on a right hand bend. Both vehicles collided with each other on their offside.
9	19.11 16 / 03:40	Serious	Darkness / Fine / Frost	Single / 60 / N/A	Car	V1 lost control on a right hand bend.
10	28.02.18 / 19:09	Slight	Darkness / Unlit / Snow	Single / 60 / N/A	Car / Car	V1 and V2 collided with the offside of each other.
11	13.10.16 / 08:30	Slight	Daylight / Dry / Fine	Single / 30 / T- Junction	Car / Car / Car	Rear end shunt from V3 into V2 causing a rear end shunt into V1.

- 2.49 The fatal collision at the A66/ New Lane junction occurred on March 22, 2019 at 09:46. A car was in the act of turning right and its offside collided with the front of a goods vehicle travelling on the A66. There were two casualties (a serious and a fatal) as a result of the incident, both associated with the car. It is understood that the goods vehicle driver was charged with causing death by dangerous driving.
- 2.50 The two slight PICs at the junction also appear to be failure to give way incidents, with the serious incidents being collisions between vehicles travelling on the A66, one of which was a shunt that involved three goods vehicles.
- 2.51 It is worth noting that there has only been a single incident at the A66 junction since 2017 and no incidents since the works were undertaken to renew/ improve the surfacing and road markings on this section of the A66 and introduce a 50mph speed limit. The planned future upgrade of this section of the A66 would also improve road safety.
- 2.52 Of the PICs away from the A66 junction:
 - One slight PIC occurred on Waitlands Lane to the north of Ravensworth and involved a car driver losing control and hitting a wall or fence;
 - One slight PIC on Stonygate Bank involved a pedestrian walking with their back to traffic to the south
 of Ravensworth;
 - Two PICs occurred on Stonygate Bank in the vicinity of the Whashton Green Lane End junction that serves Kirby Hill comprising, a serious single vehicle incident where a car left the carriageway south of the junction and two opposing cars colliding offside/offside in the vicinity of the junction;
 - One slight PIC occurred on Stonygate Bank just north of the Sturdy House Lane junction and involved two cars colliding offside/offside; and
 - One slight PIC occurred on the A6108 on the approach to the Gallowgate junction comprising a three car rear shunt on the approach to traffic signals.
- 2.53 It is worth noting that there were no PICs on the 5.5km section of road between Sturdy House Lane and the A6108 / Gallowgate junction.

PIC Summary

- 2.54 In summary, the analysis of the PICs for the surrounding highway network has highlighted eleven incidents, of which five occurred in the vicinity of the A66 New Lane junction, including a fatal and two serious incidents. It is noteworthy that only one of these incidents occurred since 2017 (a fatal incident potentially involving dangerous driving). This suggests that the recent reduction in speed limit on the A66 has had a positive impact on road safety.
- 2.55 The only incidents involving goods vehicles were at the A66 junction.
- 2.56 Elsewhere, all incidents were slight except a single 2016 serious PIC, which was a single vehicle incident south of the Whashton Green Lane End junction. There are no patterns or clusters of incidents.
- 2.57 Over the entire study area there have only been four incidents since 2017, which does not suggest any particular road safety issue on the proposed haulage route. Considering the extent of the study area, this is a fairly low number of recent incidents.

- 2.58 Overall, the only cluster of incidents is at the A66 New Lane junction and the situation there appears to have significantly improved in recent years, suggesting a downward trend that will have been assisted by the introduction of a speed limit and recent improvements to surfacing and road markings on the A66. Elsewhere, incidents are spread along the route between the A66 and Richmond. There have been no incidents on the access route to the site via Sturdy House Lane and the Tank Road.
- 2.59 In conclusion, there are no apparent road safety trends of particular concern in the context of a development that will produce only four haulage vehicle movements per day (two-way) on both northern and southern haulage routes.

Sustainable Travel

- 2.60 Access to the quarry is from the U1095 that runs to the south of the site to Sturdy House Lane and to the northeast along the boundary of the site to the Slip Inn Bank/ Priest Gill Bank junction. As noted previously, the local roads are of rural character and generally do not have footways or lighting.
- 2.61 There is a network of PROWs than run through the surrounding area. This includes footpath ref: 20.32 that runs from east to west through the northern section of the site and provides connections to other PROWs that link the site to Gayles village.
- 2.62 There is a bridleway (ref 20.39) that runs north from the Tank Road towards Kirby Hill and a footpath (ref 20.73) the runs from Kirby Hill to the Tank Road/ Sturdy House Lane junction.
- 2.63 Further afield, there are PROWs that link to surrounding settlements of Dalton, Ravensworth, Washton and Gayles, although there are sections where users would be required to walk on-road in between the PROWs. The majority of these routes comprise a mixture of unsurfaced paths and farm tracks.
- 2.64 It is worth noting that the Tank Road is not formally identified as a PROW, However, it could be used as such as it links to local rural PROW routes. This could attract some walking, cycling and horse riding journeys, although none were observed during site visits.
- 2.65 In terms of cycling, the local highway network is lightly trafficked, and a number of local settlements are within cycling distance, including Gayles, Ravensworth, Dalton and Whashton. In addition, the National Byway route runs along Slip Inn Bank and Priest Gill Bank, approximately 500m to the north of the site, that links directly to Barnard Castle in the north and to Richmond in the south. The Tank Road is only suitable for off-road cycling as it is only partially surfaced.
- 2.66 Figure 13 shows the surrounding PROW routes in the immediate vicinity of the site and Figure 14 shows the cycle routes in the wider area.
- 2.67 The site is not served by public transport.
- 2.68 In summary, the site and the Tank Road are linked to the local PROW network, including a public footpath that runs through the site.

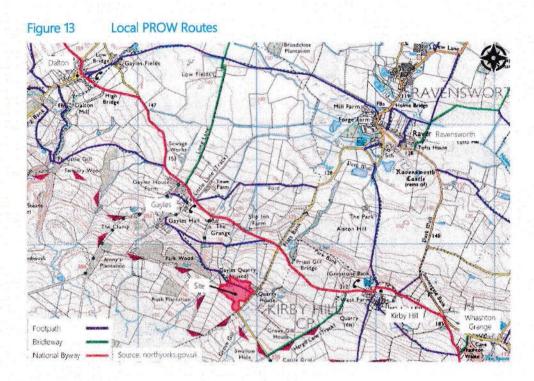
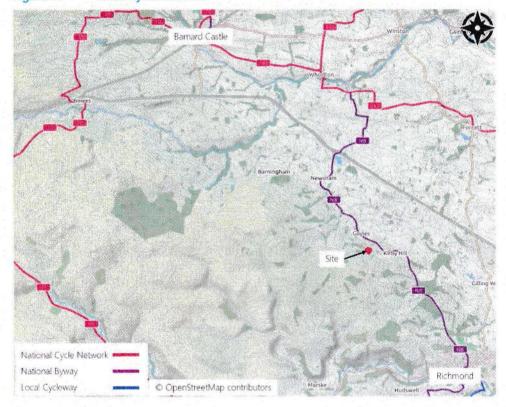


Figure 14 Local Cycle Network

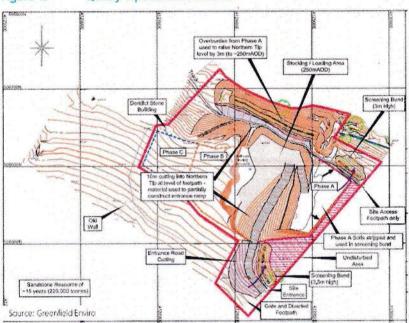


Proposed Development, Traffic Generation & Traffic Impact 3.

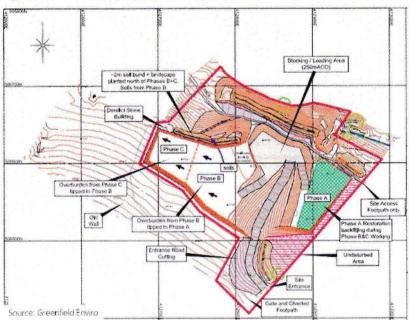
The Scheme

The scheme is shown on Figures 15 and 16 (and in Appendix 1) and involves quarrying for 225,000 tonnes 3.1 of block sandstone and walling/landscaping stone over a 15-year period across three phases.

Quarry Operations Phase A Figure 15



Quarry Operations Phases B & C Figure 16



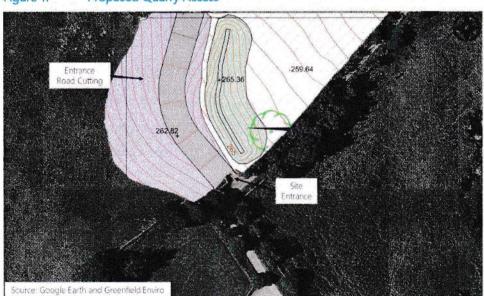
General Operational Details

- 3.2 The block will be exported to the SQL stone cutting plant in Stainton, near Barnard Castle. As a secondary process, stone waste from quarrying will be processed on site to produce a mix of walling/landscaping stone, which will be exported to the wider construction market. Remaining waste materials, spoil and overburden will be retained on site for use in restoration.
- 3.3 15,000tpa will be exported, although some variations between the proportions of block stone and walling/ landscaping stone is anticipated over the life of the quarry. It is not expected that significant import of material will be required, although small quantities of cohesive materials could be needed at times and, if so, will be back hauled to avoid additional vehicle journeys.
- 3.4 Rolling restoration of the quarry will take place throughout the works period using site won materials.
- 3.5 The guarry will operate Monday to Friday between the hours of 08:00 and 18:00 and on a Saturday morning between the hours of 08:00 and 13:00 when required.
- 3.6 Staffing will typically be four people, plus HGV drivers. It is understood that all staff will travel to and from the SQL premises in Stainton at the start and end of the working day in one vehicle.
- 3.7 All export of block sandstone and walling/ landscaping stone will be undertaken on HGVs with a maximum load of 20 tonnes.
- 3.8 Block sandstone would be exported to Stainton via the A66, with walling / landscaping stone being exported on a southerly route via Richmond.

Access Arrangements

3.9 Vehicular access to the site will be from a new priority access on the U1095 at the approximate location of an existing gated agricultural access. The location of the new access is shown in Figure 17.

Figure 17 Proposed Quarry Access



- 3.10 Details of the proposed access will be agreed with NYCC prior to commencement. Internal to the quarry, vehicles will run along designated haul roads.
- 3.11 The existing public footpath that runs through the site will be diverted for the period of the works to a route south of the site, with access from the U1095 taken just southwest of the proposed vehicular access.
- 3.12 The existing public footpath access to the northeast area of the site will be retained as a non-motorised access to the quarry.

Quarry Facilities and Staff Travel

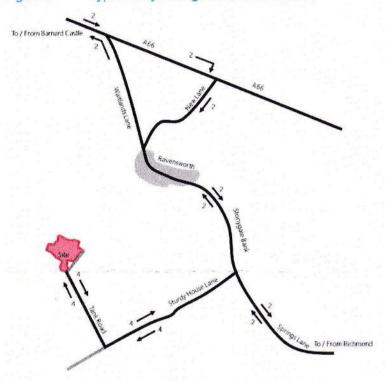
- 3.13 The quarry compound area will include:
 - Administration/ staff areas, including sanitary and mess facilities;
 - Staff and visitor parking;
 - · Compound and maintenance area for site vehicles, and;
 - Stocking and turning area for road haulage vehicles, including a weighbridge and vehicle cleansing facilities as required.
- 3.14 These facilities will be located within the quarry void and the exact layout will be confirmed prior to commencement. Overall, there is ample space within the site to accommodate the proposed small scale operations.
- 3.15 It is anticipated that staff at the quarry will travel in a group and stay on site during the working day. This limits private vehicular traffic onto the highway network.

Traffic Generation & Impact

- 3.16 The main traffic movements to/from the quarry during the normal working day will be associated with road haulage activities. As noted above, there are few staff on site and they will generally travel together in a single vehicle.
- 3.17 As noted in Section 1, for assessment purposes a conservative approach has been taken that the quarry will operate 48 weeks per year, five days per week. Based on the anticipated export quantities, the following HGV movements are required, which include an element of flexibility:
 - Block sandstone
 2 laden per day average / 3 laden per day maximum
 - Walling/landscaping stone 2 laden per day average / 3 laden per day maximum
 - Overall maximum
 5 laden per day (10 vehicle movements two-way)
- In terms of routeing on the highway network, all haulage vehicles will travel to and from Sturdy House Lane via the Tank Road. All haulage vehicles will then turn left and travel northeast along Sturdy House Lane to its junction with Stonygate Bank. At the Sturdy House Lane / Stonygate Bank junction, vehicles travelling with block to Stainton will travel north to the A66 and vehicles travelling with walling/landscaping stone will travel south via Richmond.

- 3.19 It is recognised that activity could on rare occasions be affected by military activity on Feldom ranges and there is sufficient flexibility within the SQL operation to accommodate this without difficulty.
- 3.20 The typical daily vehicle movements are shown in Figure 18, assuming that vehicles traveiling to Stainton will access the A66 via Waitlands Lane, although it is also possible for these outbound trips to be via New Lane. It is worth noting that vehicles will typically only be laden on the outbound journey.

Figure 18 Typical Daily Haulage Vehicle Movements



- 3.21 The key impacts of the development will be on the unclassified roads (Tank Road and Sturdy House Lane) that provide access to the main classified local highway network and strategic highway network. It is worth noting that following discussions with NYCC, SQL have reviewed alternative route options through the surrounding network of unclassified roads that link to the main local road network and remain of the view that the most appropriate route is that identified and discussed with NYCC.
- 3.22 It is recognised that some mitigation and ongoing management of these minor unclassified roads will be required to facilitate the day-to-day movements of a small number of HGVs accessing the site. The likely requirements have been discussed in some detail with NYCC and proposals are set out in the following section of this TS.
- 3.23 Beyond the Tank Road and Sturdy House Lane, the main local highway network is of a satisfactory standard for two-way traffic and carries through traffic (including regular HGVs) on a c.10km route between Richmond and the A66, serving a number of settlements, agricultural uses and the Feldom military ranges on route. Given the baseline situation set out in this TS it is considered that the impact of 4veh/day (two-way) to the north and south of Sturdy House Lane, laden in one direction only, will be well within the day-to-day variations of baseline traffic and insignificant in relation to the operational capacity and safety of the highway network.

- 3.24 Notwithstanding the above it is noted that NH, within their pre-application response, requested a risk assessment approach to impact at the A66 junctions if they considered there were existing safety issues at the A66 that could be materially impacted. In this respect it is worth noting that:
 - The A66 carries in the order of 19,000veh/day, including approximately 3,000 HGVs.
 - Waitlands Lane and New Lane carry 50-60 HGVs/ day to/from the A66. This figure is likely to be higher in the summer months when agricultural activity is more likely to occur or when there is military activity in the area.
 - The Waitlands Lane junction has had no PICs in the period 2016-2020 inclusive. The New Lane junction has had five PICs in the same period, including a fatal and two serious, although only one incident has occurred since 2017, in which dangerous driving may have been a factor. This suggests the recent introduction of a 50mph speed limit and the improvements to the surfacing and road markings have had a positive impact.
 - During development of the final scheme proposals significant changes have been made to de-risk
 impacts at the A66 junctions (and elsewhere) by reducing the potential HGV movements from an
 original proposed maximum of 44veh/day via the A66. The current proposal allows for only two block
 stone loads per day (up to a max of three) to use the A66 to reach the SQL cutting plant at Stainton
 near Barnard Castle (4-6 two-way trips). Trips at this low level are well within normal day-to-day traffic
 fluctuations and a small proportion of existing HGV activity.
- Overall, the proposed daily traffic movements associated with the quarry have been reduced to an extremely low level that are not considered material in the context of the Waitlands Lane junction, which has had no PICs, and the New Lane junction, which has had only one PIC since 2017 in which dangerous driving was a factor.

4. Proposed Mitigation Measures

4.1 The section of the proposed haulage route along U1095 Tank Road and U1105 Sturdy House Lane has been reviewed on site with the NYCC highway officer to determine an appropriate level of mitigation to facilitate day-to-day access along the route by HGVs. On this basis, the proposed measures to be implemented to facilitate the development are as set out below.

U1095 Tank Road

- 4.2 Following the walkover inspection with NYCC it was confirmed that sufficient opportunities exist along the Tank Road to implement minor improvements to facilitate the passage of the typical eight HGV movements per day. It was agreed that a detailed mitigation scheme for the Tank Road will be agreed following a grant of planning permission and implemented prior to commencement. In broad terms the mitigation scheme will comprise:
 - Providing verge hardening to create 2-4 passing places at locations to be agreed. In general, these
 will be created by extending the existing hardened verges around gateways;
 - Undertaking verge works to clear small areas of vegetation for visibility purposes and address any other identified roadside hazards in verges;
 - Undertaking initial surface repairs to facilitate the proposed use, particularly to address the sections
 where the existing surface is heavily weathered;
 - Providing new signage for the quarry and other users of the route, as required;
 - Undertaking on-going maintenance of the Tank Road over the life of the quarry to keep the surface and verges in satisfactory condition; and;
 - Undertaking periodic inspections with NYCC at agreed intervals and implementing any remedial measures identified.
- 4.3 Overall, it is considered that a scheme on the above basis will be satisfactory to ensure the Tank Road could be used to access the quarry and will provide some benefit to NYCC by ensuring that the road, which is currently in very poor condition in places, is maintained over the life of the quarry. The agreed scheme can be secured through a formal agreement if necessary.

Sturdy House Lane Bridge

The baseline study confirmed that Sturdy House Lane currently carries modest daily traffic flows of c.150veh/day, including a small number of HGVs, and there were no PICs along the route during the 5-year study period. This suggests the route is generally appropriate for this level of use, which will not be significantly changed by the proposed development. Notwithstanding this, it is recognised that there is a constrained section of the route of limited carriageway width and restricted forward visibility on the approaches to a bridge crossing of a small watercourse that is of concern to NYCC. The potential for damage to the bridge and it's stone parapets are also of concern, although it is understood there is no weight restriction.

- 4.5 It was agreed with NYCC on site that to assist vehicles on the approaches to the bridge, passing places will be provided on each side of the watercourse. The overall mitigation scheme will comprise:
 - On the south side, providing a passing place by extending/improving the hard verge at an existing gated access.
 - On the north side, providing a passing place by hardening the available verge adjacent to the bend where the road drops towards the watercourse.
 - On the north side, potentially providing a further area of verge widening just north of the bridge, only if a meaningful widening can be achieved within the available verge.
 - Regularly cutting back undergrowth, as agreed with NYCC, to improve visibility.
- 4.6 In addition, to address concerns regarding damage to the bridge, SQL propose undertaking periodic inspections of the bridge and approaches with NYCC at agreed intervals and implementing any remedial measures identified.
- 4.7 As with the Tank Road scheme, details of the scheme will be agreed following a grant of planning permission and implemented prior to commencement. The areas of potential verge hardening are shown indicatively on Figure 19. Further detail, including preliminary swept path analysis for a large haulage vehicle and a car passing, is included as Appendix 4.



Figure 19 Proposed Passing Places at Sturdy House Lane Bridge

- 4.8 It is considered that the proposed widening works on the approaches to the bridge will improve the situation for all users of Sturdy House Lane, including existing HGVs that use the route.
- 4.9 Overall, this approach is considered to be reasonable in the context of a few additional vehicles a day crossing an existing bridge that has no weight limit and already carries some daily HGV flows, potentially including military traffic. The agreed scheme can be secured through a formal agreement if necessary.

5. Summary & Conclusion

- 5.1 This Transport Statement has been prepared on behalf of Stainton Quarry Ltd (SQL) to consider the transportation implications of extracting 225,000 tonnes block sandstone and walling/landscaping stone over a 15-year period from Gayles Quarry, North Yorkshire. The site is situated northwest of Richmond and lies approximately 1km southeast of Gayles and just north of Feldom military ranges.
- 15.2 It is worth noting that the scope of this Transport Statement was agreed some time ago during preapplication discussions when the proposals potentially involved 18-48 HGVs/day accessing the quarry, all
 on a northern route via the A66. Since this time the proposals have evolved significantly, in part to
 address highway authority concerns. HGV movements have been reduced to 8-10/day and split across
 northern and southern haulage routes. Therefore, impacts of the final proposal on the main highway
 network are now hugely reduced 4veh/day on average via the A66, of which two are laden.
- 5.3 The findings of this Transport Statement are summarised as follows:
 - Gayles Quarry is a disused quarry which holds substantial reserves of quality gritstone. The stone is suitable for use in the production of dimensional stone products and walling/landscaping stone.
 - The only viable HGV access to the quarry is via the U1095 to the south. This road, which also serves the adjacent Feldom military ranges, agricultural premises and a few residential properties, is known as the Tank Road. It is a single track road with a mix of surfaced and unsurfaced sections that restrict through traffic to 4x4s and military/ agricultural vehicles. The route could also be used by walkers/cyclists/ equestrians accessing the PROW network, which includes a public footpath through the site.
 - From Tank Road, the haulage route follows U1105 Sturdy House Lane to the classified highway
 network at Stonygate Bank/ Springs Lane, from where haulage vehicles will travel north to the SQL
 stone cutting plant at Stainton near Barnard Castle or south to a range of markets via Richmond.
 - The Sturdy House Lane route includes a short section over a small single track bridge. Beyond Sturdy House Lane all roads are marked for two way traffic and are generally of rural character, except within the built up area of Richmond in the south and Ravensworth in the north.
 - Traffic flows on the local highway network are low, as established through traffic surveys, with existing two-way flows on haulage routes (excluding Tank Road) between 150 1,017veh/day. All routes regularly carried HGVs except the Tank Road, which carried less than 15veh/day in total during the surveys. Mean daily HGV flows ranged from 6/day on Sturdy House Lane to 50/day on Waitlands Lane. It is worth noting that the surveys were undertaken in late November/ December when agricultural activity is expected to be low and there was no military activity on Tank Road.
 - Recorded speeds at the traffic count locations did not suggest speeding was a significant issue.
 - Overall, traffic surveys did not suggest any significant capacity or speed issues on the local highway network, which carries modest traffic flows, including approximately 3-6% HGVs.
 - Access to the A66 in the north is onto a single carriageway section, via priority junctions with
 Waitlands Lane (outbound only) or New Lane (outbound & inbound). The A66 through the area is
 well trafficked and is understood to carry c.19,000veh/day, including c.3,000 HGVs. National Highways
 recently completed local works on the A66, which included introduction of a 50mph speed limit,
 resurfacing, signing and new road markings. An aim of the scheme was to improve road safety. A
 wider upgrade of this section to dual carriageway, including a new grade separated junction to serve
 the area, is programmed to commence in 2024.

- Analysis of the personal injury collisions along the proposed haulage routes has highlighted eleven
 incidents. The only cluster is at the A66 New Lane junction, where the situation appears to have
 improved in recent years, suggesting a downward trend that will have been assisted by the recent
 improvements and introduction of a 50mph speed limit. Elsewhere, incidents are spread along the
 route between the A66 and Richmond. No incidents occurred on Sturdy House Lane or Tank Road.
- Overall, there are no apparent road safety trends of particular concern in the context of the proposed small scale development.
- The proposed development involves a total of 15,000 tonnes per annum of block stone and walling/ landscaping stone being exported. It is not expected that significant import of material will be required and any small quantity that is necessary will be back hauled to avoid additional vehicle trips.
- Rolling restoration of the guarry will take place throughout the works period using site won materials.
- The quarry will operate Monday to Friday between the hours of 08:00 and 18:00 and on a Saturday morning between the hours of 08:00 and 13:00 when required. Staffing at the quarry will typically be four people, plus HGV drivers. It is understood that all staff will travel to and from the SQL premises in Stainton at the start and end of the working day in one vehicle.
- All export of block sandstone and walling/ landscaping stone will be undertaken on HGVs with a
 maximum load of 20 tonnes. Block sandstone will be exported on a northerly route to Stainton via the
 A66, with walling/ landscaping stone being exported on a southerly route via Richmond.
- On the above basis, the quarry will produce four laden vehicles movements per day on average, two
 of which will travel via the northern route and two via the southern route. This equates to a total of
 8veh/day (two-way) across all routes. To account for a small amount of day-to-day fluctuation a
 maximum of 10veh/day (two-way) is anticipated. Overall, the development will be a very small scale
 operation in terms of off-site haulage activity.
- Local mitigation measures are proposed to facilitate HGV access along the unclassified Tank Road and Sturdy House Lane. Details will be agreed with NYCC in due course but measures (as described indicatively in this document) will include a combination of verge hardening to create passing places, clearing small areas of vegetation for visibility purposes, verge repairs to address any identified roadside hazards, surface repairs of the Tank Road to facilitate the proposed use, providing new signage for the quarry and other road users as required, on-going maintenance (particularly of the unsurfaced sections of the Tank Road), undertaking periodic inspections at agreed locations/ intervals (including Sturdy House Lane bridge) and implementing any remedial measures identified.
- The agreed mitigation scheme can be secured through a formal agreement if necessary.
- Beyond the Tank Road and Sturdy House Lane, the main local highway network is of a satisfactory standard for two-way traffic and carries through traffic (including regular HGVs) on a c.10km route between Richmond and the A66, serving a number of settlements, agricultural uses and the Feldom military ranges on route. It is considered that the impact of 4veh/day (two-way) to the north and south of Sturdy House Lane will be well within the day-to-day variations of baseline traffic and insignificant in relation to the operational capacity and safety of the highway network.
- In conclusion, the proposed development will not result in any significant impacts on the surrounding highway network, subject to agreement of appropriate mitigation and management measures on U1095 Tank Road and U1105 Sturdy House Lane, and is considered satisfactory in transportation terms.