The Hurlstone Partnership

PERIODIC REVIEW (ROMP) AT OXTED QUARRY, CHALKPIT LANE, OXTED, SURREY, RH8 0QW

Transport Statement

May 2017

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Transportation Planning, Highway Design and Environmental Assessment

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1 INTRODUCTION

1.1 Oxted Quarry is located approximately mid-way between Woldingham to the northwest and Oxted to the southeast; each being approximately 2 km distant.

1.2 The site consists of 27 hectares (67 acres) of land in total, bounded by the "C" class roads known as Chalkpit Lane on the east and Woldingham Road on the north. To the immediate west and south are agricultural fields and the North Downs Way long distance footpath, with the M25 Motorway located some 200 metres to the south and a rail line into London some 300 metres to the west.

1.3 The site is accessed via Chalkpit Lane which has a width restriction immediately to the north of the northern site access, resulting in all HGV traffic approaching from and departing to the south of the site via Oxted.

1.4 Under the Town and Country Planning (Environmental Impact Assessment) Regulations 2011, an Environmental Impact Assessment (EIA) is required to accompany the Environment Act 1995 Periodic Review of Mining Sites (ROMP) of planning permission reference TA 93/0765 relating to Oxted Quarry.

1.5 Oxted Quarry produces chalk which is spread on agricultural land to improve soil fertility and increase crop yield as well as being used as a general construction fill material. The site is also used for the disposal of naturally occurring inert waste materials in accordance with the approved restoration scheme. The restoration scheme for the site is to reinstate the extraction area largely back to original ground levels using inert infill. The site would be restored to agricultural land with areas of tree and shrub planting and conservation habitats.

1.6 The existing planning permission under which the existing activities are undertaken extends to 21 February 2042.

1.7 Southern Gravel Limited, the operator of the Oxted Quarry, instructed The Hurlstone Partnership Limited to review the highways and transport elements relevant to the ROMP submission, as indicated in Surrey County Council's Scoping Opinion of 1st May 2012. Following this instruction, a Transport Statement was prepared in May 2012 and submitted as part of the ROMP submission.

1.8 The importing and exporting of materials to/from the site was temporarily suspended at the end of 2011; although activities continued within the site during the suspension. Imports recommenced in October 2016.

1.9 Since May 2012 there has been ongoing dialogue with Surrey County Council regarding Oxted Quarry and its impact on the local road network. Surrey County Council also

funded an independent review of the network; the findings of which were subsequently considered and a response set out in The Hurlstone Partnership report of January 2016 entitled "*Consideration of Suggested HGV Limits by Surrey County Council*".

1.10 A significant element of the discussions/negotiations with Surrey County Council has focused on suggested conditions that may be imposed upon the ROMP determination, and which would be acceptable to the operator.

1.11 As a result of local objections and concerns regarding the HGV activity associated with the site, despite Oxted Quarry currently having no restrictions in terms of the number of HGVs travelling to the site, Surrey County Council is considering the imposition of a limit of 28 loads / 56 HGV movements per day on average over the year, with a daily cap of 75 loads / 150 HGV movements. This cap and average would only apply to vehicles importing waste to the site for restoration purposes. The number of HGV movements associated with chalk extraction would remain unrestricted.

1.12 Since Surrey County Council originally suggested the above limits, Southern Gravels Limited has secured a revised permit from the Environment Agency, which allows up to 200,000 tonnes of inert waste to be deposited within the site per annum. The revised permit was issued on 6th December 2016 and effectively doubled the quantum of restoration material that could be imported to the site annually.

1.13 The Hurlstone Partnership Limited was subsequently instructed to update the previous report of 2012, using more recent traffic and collision data.

1.14 In order to assist the review, empirical traffic survey data for the local road network has been purchased from Surrey County Council and analysed in the context of the extant permission and current design guidance.

1.15 The remainder of this Transport Statement details the findings of the review.

2 PLANNING HISTORY

2.1 It is understood that chalk extraction from the site dates back more than 150 years. The original planning permission for chalk extraction was an Interim Development Order consent granted in 1947. This was subsequently registered under the Planning and Compensation Act 1991 and given the reference TA 92/0070.

2.2 In 1993 an application was made to Surrey County Council (Surrey) by Tilcon for the determination of modern planning conditions as required under the Planning and Compensation Act 1991. There were no planning conditions attached to the original permission which controlled the development at the site.

2.3 New planning conditions were issued by Surrey on 11 June 1997 (reference TA93/0765) and were accompanied by approved plans showing the then extent of extraction, the operational phases and the restoration contours. The conditions allow for extraction and infilling to be carried out until 2042.

2.4 The 1997 planning conditions place no restrictions in terms of the rate at which the remaining chalk reserves, which extend to approximately over 1 million tonnes, may be exported. Similarly, there is no restriction on the rate of infill that may be imported (although the existing Environment Agency permit specifies up to 200,000 tonnes per annum). Based on the existing chalk reserves and available void space, approximately 800,000 cubic metres of infill would be required to achieve the approved restoration in the event all chalk reserves are extracted.

2.5 As a result of the flexible nature of the extant planning permission in terms of extraction and importation, there is no restriction on the number of vehicle movements associated with operations at Oxted Quarry. The movement of vehicles is limited to between 07:00 – 18:00 Monday to Friday and 07:00 – 15:00 on Saturdays with no goods vehicles entering or leaving the site on a Sunday or Public Holiday, as specified in condition 9 of the extant planning permission.

2.6 The extant planning permission also provides for the prevention of deposition of extraneous matter on the highway (condition 5); the sheeting and trimming of loaded vehicles (condition 6); agreed improvements to the accesses to Chalkpit Lane (condition 7); and restrictions to the points of access to Chalkpit Lane (condition 8).

2.7 Chalk is primarily sold for spreading on agricultural land and as a general fill. Historically there was extensive chalk processing carried out on site to produce hydrated lime and powders. In more recent years annual sales of chalk have been almost 40,000 tonnes and inert infill has been almost 100,000 tonnes per year until the recent increase in the Environmental Permit, which allows up to 200,000 tonnes per year to be infilled.

3 EXISTING HIGHWAY NETWORK

3.1 Oxted Quarry is served by two access points to Chalkpit Lane. The main site access, which is in frequent use, lies to the south, approximately 290m to the north of the bridge where the M25 crosses above Chalkpit Lane. The other access, which is used infrequently and is located approximately 170m further to the north. There is a third access to Chalkpit Lane between these two accesses, although it has not been used for many years and kerbing installed as part of a scheme of works undertaken by Surrey County Council would prevent is use by normal vehicles.

3.2 The southern access extends 19.7m along the western edge of Chalkpit Lane. There is an area of hard-standing between the edge of Chalkpit Lane and the entrance gates to the quarry, which are set back 8.6m and have an opening width of 7.3m.In addition to serving Oxted Quarry, there is contiguous access to a dwelling located immediately to the north between the carriageway edge and entrance gates.

3.3 Visibility at the access extends 20m to the near edge, 32.7m to the centreline and 41.3m to the far edge of Chalkpit Lane to the left from a 2.4m set-back position at the centreline of the access. The comparable splay to the right extends 48.9m to the near edge and 63.8m to the centreline of Chalkpit Lane. Forward visibility towards a vehicle emerging from the site extends approximately 57m from the north and 75m from the south. The visibility at the site access is below desirable standards and is restricted by neighbouring development, but remains as previously accepted when activities at the site have been considered historically. It was noted that there was a post that historically supported a convex mirror opposite the site access, which is understood to be related to the dwelling to the north. The mirror is missing and is understood to have been damaged by a falling tree/branch a number of years ago. It is understood that the mirror is to be replaced in the near future.

3.4 The northern access extends 19.7m along the near edge of Chalkpit Lane and also has a gated entrance with a width of 7.3m, which is set back 4.2m from the carriageway. Visibility at the northern access was measured to extend 80.1m to the near edge, 75.5m to the centreline and 67m to the far edge of the carriageway from the 2.4m set-back. The comparable splay to the right was measured to extend 37m to the near edge and 80m to the centreline from the same position. The constraint to visibility to the left was a combination of the highway alignment, which includes a sharp bend, and vegetation overhanging the highway on the opposite side of the carriageway. The constraint to the right is vegetation within the verge area. Visibility to the left accords with the requirements specified by the extant planning permission. The removal of vegetation which has grown within the splay area would be required to achieve the approved splay of 120m to the left from a 4m set back position. It is understood that the operator has arranged for the visibility splay to be cleared in accordance with the existing planning condition.

3.5 Immediately to the north of the northern access there is a 6 foot 6 inch width restriction except for access, to prevent general use by HGV traffic. Signage to the south of the

access alerts drivers to the presence of site traffic, the bend in the road ahead and the 20% uphill gradient.

3.6 The maximum gradient on Chalkpit Lane was measured to be 21% to the north of the bend. The gradient reduces to approximately 12.8% near the northern access and 9.5% at the southern access position.

3.7 The width of Chalkpit Lane was measured to vary from a minimum of 4m to the north of the bend, increasing to 4.7m on the bend itself. To the south of the bend the carriageway width varies between approximately 4.22m and 4.9m. Continuing to the south, the nominal width of Chalkpit Lane varies between 4.3m and 6m down to the junction with Barrow Green Road, which is approximately 1.1km distant. However, there is a chicane to the south of the M25 bridge, which restricts the available carriageway width to 3.5m and gives priority to vehicles travelling northbound.

3.8 The chicane acts as a gateway feature and is the point at which the speed limit of 40 mph to the north reduces to 30 mph. To the south of the 30 mph speed limit the character of the route changes and becomes more urban in nature with direct access to dwellings located on both sides of the carriageway.

3.9 Approximately 50m to the south of the speed limit transition a pedestrian footway is introduced on the east side of the route, which continues south into Gordon's Way, a further 325m distant. The pedestrian footway continues along Gordon's Way into Oxted. Observations on site reveal that pedestrians appear to walk on the verge to the north in order to access Chalkpit Wood land beyond to the east of Chalkpit Lane and south of the M25.

3.10 Ordnance Survey mapping indicates that there are no public rights of way within either Chalkpit Wood or the land to the north, although there is clear evidence of pedestrian activity, certainly in the field to the north of the wood. There is a public footpath (Greensands Way) at the eastern end of the field, which crosses over the M25 via a bridge to connect to Pilgrims' Way. If travelling west along Pilgrims' Way, walkers would cross Chalkpit Lane to the south of the main access to Oxted Quarry. Heading north along Greensands Way links into Chalkpit Lane for a short distance at its northern end, before crossing the ridge and continuing as Vanguard Way. Heading south leads into Oxted to the east of its centre and onwards towards Limpsfield.

3.11 Beyond the junction with Gordon's Way the 30 mph speed limit increases to 40 mph as Chalkpit Lane follows an S bend and passes beneath a railway line via a bridge with a headroom clearance of 14 feet (4.26m). Beyond the bend there are several dwellings before reaching the priority T junction with Barrow Green Road, approximately 230m distant.

3.12 Visibility at the junction between Chalkpit Lane and Barrow Green Lane extends 104m to the near edge of the carriageway to the right (west) towards oncoming traffic, which is acceptable when considered against current design guidance. The splay to the near traffic lane to the left (east) is partially obscured by the hedgerow along the north side of

Barrow Green Road for a short distance. However, the view towards the far traffic lane extends to the rail bridge, which has a 14 feet 3 inches (4.34m) height limit, some 186m distant. Taking into account the minimum width (4.55m) and meandering nature of Barrow Green Lane between the rail bridge and junction in combination with the 40 mph limit imposed, the restriction in terms of the view to the near lane in terms of being able to see an overtaking vehicle is considered to be acceptable, as overtaking manoeuvres in the shadow area are likely to be infrequent.

3.13 Heading east from the Chalkpit Lane junction along Barrow Green Road, the carriageway width varies between 4.55m and 5.75m at the Gordon's Way junction. Immediately before the Gordon's Way junction the speed limit reduces to 30 mph as Barrow Green Road enters the more urbanised area of Oxted. The carriageway width then varies between 6.65m and 5.05m along the 0.4km section of the route between Gordon's Way and the Church Lane/Bluehouse Lane junction, where Church Lane and its continuation Bluehouse Lane form the priority route. To the north of the junction, Barrow Green Road passes beneath a railway bridge with a height restriction of 12 feet 6 inches (3.8m). Pedestrian footways extend along both sides of the carriageway, which is lit.

3.14 The priority route at the junction follows a relatively sharp left hand bend when travelling from Bluehouse Lane (west) to Church Lane (south). Immediately to the east of the junction is the access to Oxted railway station. Due to the alignment of the priority route, drivers turning from Barrow Green Road effectively look straight ahead into Church Lane towards oncoming traffic and left along Bluehouse Lane. Visibility at the junction was measured and found to be acceptable when considered against current design guidance.

3.15 The northern section of Church Lane extends approximately 295m from the Barrow Green Road junction to a four-arm roundabout with Station Road and East Hill Road. Church Lane has an initial width of 6.3m between kerbs, which increases when travelling south. Parking bays with restricted waiting times are marked on the east side of the route, which take up some carriageway space. However, the residual width between the offside edge of the parking bays and opposing kerb remains between 6.3m and 6.9m.

3.16 Along the majority of the length of this link there is a recreation ground on the west side of the carriageway. The carriageway at the access to the recreation ground was measured to be 8.15m wide, although when cars are parked within the marked on-street bays, the residual width would reduce to 6.2m

3.17 Continuing south towards the roundabout, the carriageway width reduces to 6.5m with on-street parking bays reducing the residual width to 4.5m when occupied.

3.18 At the roundabout, Church Lane continues in a southerly direction by effectively turning right at the junction. A left turn leads into Station Road West and continuing ahead leads to East Hill Road. East Hill Road climbs from the junction and has a nominal width of 7.5m. Parking bays are provided on the east side of the route which, when occupied, would reduce the residual width to 5.3m along the initial section of its 215m length. Measurements taken at various points on the link reveal the carriageway width varies between 6.2m and 7.7m. The occupation of the marked on-street parking bays would reduce the effective width to between 4.1m at one point and 5.6m.

3.19 At the southern end of East Hill Road, the route connects to the A25 East Hill/West Hill at a priority T junction. At the junction, the speed limit increases to 40 mph along the A25. The A25 descends to the east and rises to the west of the junction. On-carriageway cycle lanes are provided on the A25 and drivers are alerted to its presence by signage on the East Hill Road. Visibility at the junction in both directions is acceptable based on current design guidance.

3.20 Turning right onto the A25 directs drivers in a southwest direction along West Hill. The route climbs briefly before descending into a dip. Beyond the bottom of the dip the speed limit increases to 50 mph as the route begins to climb. The road crests then descends into and out of a slight dip before reaching the four-arm roundabout junction between the A25 Godstone Road/Oxted Road, Tandridge Lane and Barrow Green Road, which is approximately 2km from the East Hill Road junction.

3.21 Barrow Green Road heads north from the roundabout then follows a bend to the right to continue generally in a north-easterly direction towards and beyond its junction with Chalkpit Lane, which is approximately 2km distant. The nominal width of Barrow Green Road varies between approximately 4.6m and 6m along its length as it meanders and undulates towards Oxted. The road is not lit and there are no footways along the initial section. A footway link is provided along the 425m length between Sandy Lane and Chalkpit Lane. There was some evidence of people walking along the verges in some locations and people were also observed to be walking along the carriageway between Sandy Lane and Barrow Green Farm.

3.22 Barrow Green Lane incorporates various accesses to dwellings, equestrian centres, agricultural land etc. which are sporadically distributed along the route, which is subject to a 40 mph speed limit along its length. Due to the alignment of the carriageway, the visibility at several accesses is restricted and some have convex mirrors to assist visibility. Warning signs are provided to alert drivers to the potential hazards of junctions and pedestrian activity along the route.

4 EXISTING TRAFFIC FLOWS

4.1 Surrey County Council has a permanent Automatic Traffic Counter (ATC) on Chalkpit Lane, which is located to the north of the bridge under the M25 Motorway. The ATC counter has been recording continually since May 2008, with the exception of intermittent technical problems for brief periods. The ATC records directional volumes and vehicle classifications.

4.2 Imports to Oxted Quarry were temporarily suspended in 2012. Therefore, when preparing the previous report in 2012, data from March 2012, which is a neutral month, was obtained from Surrey County Council.

4.3 The table below summarises the results from the ATC recorded during March 2012:

Table 4.1 Traffic Flows on Chalkpit Lane – March 1st – 31st 2012 Inclusive

Time / Direction	7 Day Average (Monday – Sunday)				5 Day Average (Monday – Friday)				
	24 Hour	12 Hour	AM Peak	PM Peak	24 Hour	18 Hour	12 Hour	AM Peak	PM Peak
Southbound	690 (2)	591 (2)	71 (0)	59 (0)	766 (13)	755 (13)	656 (11)	90 (1)	68 (0)
Northbound	721 (4)	608 (4)	60 (1)	68 (1)	793 (10)	781 (10)	665 (10)	76 (1)	78 (1)
Total	1411 (6)	1199 (6)	131 (1)	127 (1)	1559 (23)	1536 (23)	1321 (21)	166 (2)	146 (1)

XX = Total Vehicles (YY) = HGVs within Total Vehicles
18 Hour = 06:00 – 24:00 12 Hour = 07:00 – 19:00 AM Peak = 08:00 – 09:00 PM Peak = 17:00 – 18:00

4.4 Table 4.1 above indicates that the total volume of traffic using Chalkpit Lane to the north of the M25 was relatively low in absolute terms. The 24 hour flow between Monday to Friday was 1559 movements of which 23 (1.5%) were classified as HGVs. The AM and PM peak hours were found to fall between 08:00 – 09:00 and 17:00 – 18:00 respectively, which is consistent with typical AM and PM peak periods for commuters travelling to/from work.

4.5 During the AM peak hour a total of 166 movements including 2 (1.2%) HGVs were recorded. The comparable PM peak hour flow was 146 movements including 1 HGV, which represents 0.7% of the total flow.

4.6 As can be seen from Table 4.1, the traffic flows averaged over the 7 day period are lower than those averaged over the 5 day working week. This is because the number of vehicle movements at weekends is lower than are recorded between Monday and Friday inclusive.

4.7 Traffic data recorded along Barrow Green Road was reported in the Transport Statement of 27th June 2011 prepared in association with the Oxted Sand Pit Infilling with Inert Waste and Restoration report. The report confirmed that surveys undertaken by ATC for a week commencing 14th May 2011 revealed a 5 day average 12 hour (07:00 – 19:00) flow of 1160 movements northbound and 1428 southbound, resulting in a combined total of 2588 movements. The average combined number of HGV movements over the same period was found to be 48, which equates to 1.9% of the total volume. The highest combined HGV flow was found to be 63 movements on Wednesday 18th May. The highest hourly flow for the week was also recorded on the same day when a total of 376 movements were recorded.

4.8 In terms of the traffic attracted to Oxted Quarry, weighbridge data obtained from 2008 to 2011 revealed that the average daily number of HGV movements associated with the site on the local road network varied between 30 in 2009 (15 in/15 out) and 56 in 2008 (28

in/28 out). In 2010 and 2011, the average daily HGV flows were 44 (22 in/22 out) and 46 (23 in/23 out) respectively. The daily average is based on 275 working days per annum and allowing for public holidays and planned shutdown periods.

4.9 On Wednesday 18th May 2011, when the highest number of HGV movements was recorded on Barrow Green Road, Oxted Quarry attracted 26 loads, resulting in 52 HGV movements on the local road network.

4.10 The peak weeks of activity during each year between 2007 and 2011 inclusive were identified from the weighbridge data, which provided the following information.

Table 4.2 Daily HGV Loads During Peak Weeks 2007 – 2011

Dates	Mon	Tue	Wed	Thu	Fri	Sat	Total
14-18 February 2011	30	47	48	70	69	0	264
07-11 March 2011	71	82	64	8	42	0	267
14-18 March 2011	73	86	90	60	42	0	351
21-25 March 2011	17	34	53	91	64	0	259
25-29 July 2011	91	86	75	63	33	0	348
22-26 August 2011	43	86	70	53	62	0	314
12-16 April 2010	181	52	56	63	36	0	388
07-11 December 2009	67	70	61	59	61	0	318
08-12 September 2008	66	76	62	64	73	0	341
22-26 September 2008	56	66	78	73	69	0	342
29 Sept - 04 Oct 2008	71	67	70	65	69	30	342
06-10 October 2008	71	68	84	81	76	0	380
20-24 October 2008	77	81	76	74	72	0	380
27-31 October 2008	70	71	88	76	25	0	330
03-07 October 2007	65	82	76	91	92	0	406

Above Flows to Doubled to Obtain Total Daily HGV Movements

4.11 The review of the weighbridge data confirmed that the busiest day of activity at Oxted Quarry throughout the period considered between 2008 and 2011 was 362 movements (181 in / 181 out) on 12th April 2010.

4.12 As can be seen from Table 4.2 above, the peak daily flow of 181 loads/362 movements was exceptional in terms of throughput and was around double the level of the next highest daily total of 92 loads /184 movements, which occurred on 1 day, and 91 loads / 182 movements, which occurred on 3 days.

4.13 Following historic meetings and discussions with Surrey County Council, Southern Gravel instigated a routing protocol which splits the number of HGV movements along Barrow Green Road. The routing protocol, which is imposed on all HGV drivers visiting the site, is to approach via the A25/Barrow Green Road roundabout to travel northeast along Barrow Green Road before turning left into Chalkpit Lane then left into the site. When leaving Oxted Quarry, HGV drivers must turn right and travel south along Chalkpit Lane to the junction with Barrow Green Road, at which point they must turn left and travel east along that route to Church Lane. Having turned right onto Church Lane at the end of

Barrow Green Road, drivers continue across the roundabout into East Hill Road to join the A25 at the priority junction.

4.14 It is understood that this routing protocol was agreed in order to halve the potential impact along either section of Barrow Green Road and reduce the potential for HGVs to meet along the narrow sections of Barrow Green Road. The route to the east of Chalkpit Lane connects to the existing bus routes and was considered more appropriate to accommodate the HGV traffic in terms of the geometric layout of the highway.

4.15 As a result of the routing agreement, of the 63 HGV movements recorded on Barrow Green Road on Wednesday 18th May 2011, 26 would have travelled northeast bound towards Oxted Quarry. It is therefore apparent a substantial proportion of HGV traffic travelling along Barrow Green Road is unrelated to either Oxted Quarry or Oxted Sand Pit, the latter of which was closed when the surveys were undertaken.

4.16 Updated traffic survey information has been obtained from Surrey County Council on Chalkpit Lane. A week of survey data from September 2016 (prior to imports resuming to the site) and a week from November 2016 (after imports had resumed) were purchased from the Council. Table 4.3 below summarises the survey results for the period in September.

Table 4.3 Traffic Flows on Chalkpit Lane – September 12th – 18th 2016 Inclusive

Time / Direction	7 Day Average (Monday – Sunday)				5 Day Average (Monday – Friday)				
	24 Hour	12 Hour	AM Peak	PM Peak	24 Hour	18 Hour	12 Hour	AM Peak	PM Peak
Southbound	817 (12)	695 (9)	83 (1)	68 (0)	921 (15)	902 (13)	779 (12)	105 (1)	75 (0)
Northbound	870 (14)	729 (11)	79 (1)	87 (1)	972 (17)	960 (16)	814 (13)	98 (1)	104 (1)
Total	1687 (26)	1424 (20)	162 (2)	155 (1)	1893 (32)	1862 (29)	1593 (25)	203 (2)	179 (1)

XX = Total Vehicles (YY) = HGVs within Total Vehicles
18 Hour = 06:00 – 24:00 12 Hour = 07:00 – 19:00 AM Peak = 08:00 – 09:00 PM Peak = 17:00 – 18:00

4.17 A review of the data provided by Surrey County Council confirms the peak hourly flow was recorded to be 212 movements between 08:00 – 09:00 on Monday 12 September (102 northbound/110 southbound) of which 1 northbound vehicle was a HGV.

4.18 It is apparent from the survey data above, that even when Oxted Quarry was not operational, there is still regular HGV activity along Chalkpit Lane associated with servicing other premises/land.

4.19 Table 4.4 below summarises the results for the period in November 2016, when the site was operational.

Table 4.4 Traffic Flows on Chalkpit Lane – November 7th – 13th 2016 Inclusive

Time / Direction	7 Day Average (Monday – Sunday)				5 Day Average (Monday – Friday)				
	24 Hour	12 Hour	AM Peak	PM Peak	24 Hour	18 Hour	12 Hour	AM Peak	PM Peak
Southbound	832 (14)	719 (12)	87 (1)	67 (1)	931 (17)	917 (16)	799 (14)	112 (1)	77 (1)
Northbound	867 (14)	736 (11)	78 (1)	86 (1)	948 (16)	935 (15)	801 (13)	99 (1)	99 (1)
Total	1699 (28)	1455 (23)	165 (2)	153 (2)	1879 (33)	1852 (31)	1600 (27)	211 (2)	176 (1)

XX = Total Vehicles (YY) = HGVs within Total Vehicles
18 Hour = 06:00 – 24:00 12 Hour = 07:00 – 19:00 AM Peak = 08:00 – 09:00 PM Peak = 17:00 – 18:00

4.20 The data provided by Surrey County Council confirms the peak hourly flow during the November survey was between 08:00 – 09:00 on Tuesday 8th November when 228 vehicle movements were recorded (107 northbound/121 southbound), of which 3 (1 northbound/2 southbound) were HGVs.

4.21 Weighbridge data was obtained from Oxted Quarry for the period 07 – 13 November 2016, which confirmed 12 loads were delivered on Monday 7th, 7 loads on Tuesday 8th and 5 loads on Wednesday 9th November 2016. Of these, only one occurred during either the AM or PM peak hour periods on 08th November, which was recorded at the weighbridge at 08:45, and would have account for 2 of the three HGV movements on Chalkpit Lane within the peak hour of flow during the survey period.

4.22 We are advised that since the beginning of January 2017 until the Easter Bank Holiday week ending 14th April 2017, the site has typically received between 50 and 60 loads / 100 and 120 HGV movements per day with the busiest day being 78 loads / 156 HGV movements. Since then, activity has reduced to between 10 and 30 loads / 20 and 60 HGV movements per day as many of the jobs supplying fill to Oxted Quarry have temporarily stopped digging.

5 HIGHWAY SAFETY

5.1 In order to review the safety performance of the local road network, collision data was obtained from Surrey County Council, which extended along the A25 between the East Hill Road and Barrow Green Road junctions; along the length of Barrow Green Road, Church Lane and East Hill Road; along Chalkpit Lane to the junction with The Ridge; along the full length of The Ridge and along Northdown Road to its junction with Church Road.

5.2 The original ROMP report considered collision data for the preferred 5 year period from 01 February 2007 to 31 January 2012. Within that period there were 3 collisions involving HGVs.

5.3 In April 2007 a collision occurred between a car and HGV as a car was turning right into the filling station opposite Church Lane from the A25. Based on the collision data provided, it appears that the rear of the HGV travelling westbound on the A25 collided with the nearside of the car, resulting in slight injury to the car driver.

5.4 In September 2010 there was a collision between a HGV travelling south and a car travelling north along Chalkpit Lane. The details indicate the car driver approached the bend to the south of Oxted Quarry at speed and did not see the HGV until it was too late to stop. The car ran into the HGV and the collision resulted in the car driver being seriously injured. The operator has photographs of the incident and confirmed that the HGV driver had seen the car driver approaching at speed and had stopped when the collision occurred.

5.5 In June 2011 a HGV collided with a cyclist at the roundabout junction between the A25/Barrow Green Road and Tandridge Lane, resulting in slight injury. Both the cyclist and HGV were travelling from east to west through the junction.

5.6 In the event there is a particular characteristic of the local highway network that significantly compromises safety, it is common to find a number of incidents in the locality that share similar characteristics. The review revealed that the three recorded collisions involving HGVs all occurred in different locations and had notably different characteristics. It is also noted that two of the collisions occurred on the classified A25, which is a relatively heavily trafficked route that is constructed to a higher standard than the local roads to the north.

5.7 As part of this review, updated collision data has been obtained from Surrey County Council from 01 January 2012 to 30 November 2016, which was the most recent information available.

5.8 It was found that there have been no recorded injury accidents on the local road network during the additional period considered.

5.9 The traffic data reveals that there is clearly a level of historic use of the highway network by HGV traffic associated with Oxted Quarry and other activities. Whilst the local road network comprising Barrow Green Road, Chalkpit Lane, Church Lane and East Hill Road may not be ideally suited to HGV access when compared with modern desirable standards, it is apparent that the historic level of use when Oxted Quarry was operational has not led to a significant problem in terms of highway safety. Similarly, the ongoing use by other HGVs unrelated to the quarry during the temporary suspension of imports to the site has not led to unacceptable safety impacts.

5.10 The good safety record associated with the site is assisted by the routing and Site Rules provided to drivers visiting the site. The Site Rules provide a code of conduct to all drivers within and outside the site. A route map showing the entry and exit routes via Barrow Green Road is attached to the Site Rules, which advise: "*In consideration to local residents, a 20mph maximum on local roads is requested.*" The Site Rules also state:

"Any drivers found to be in breach of any of these rules will be asked to leave the site and will not be allowed to return".

5.11 The evidence of use of the site and lack of incidents is demonstrative that in terms of highway safety, the proposed development, which simply seeks to maintain current activities throughout the permitted period, is acceptable. The evidence based approach to appraisal of highway safety is supported by Manual for Streets 2 (MfS2). As has been identified, the visibility provision at the site access is below desirable standards but has not led to collisions in recent years, despite the clear and frequent use.

5.12 Paragraph 10.5.9 of MfS2 advises: *"The Y distance should be based on the recommended SSD values. However, based on the research referred to above, unless there is local evidence to the contrary, a reduction in visibility below recommended levels will not necessarily lead to a significant problem."*

5.13 This is reiterated in an article contained in the November 2010 edition of Transportation Professional, the magazine of the Chartered Institution of Highways and Transportation. The Cover Story article *"Manual for Streets 2"*, which quotes Alan Young, the principle author of MfS1 and MfS2: *"The advice is to look at speed first, then detailed assessment of local context and vehicle and pedestrian collision records. If there is a problem of safety, deal with it as appropriate; if collision records are acceptable, avoid rigorous following of standards and focus on the quality of the place," says Mr. Young."* The article concludes with a further quotation *"This research combined with what's been recognised before suggests greater visibility could be increasing hazards, but the important message is do not get hung up on standards. Be flexible and make decisions based on evidence."*

5.14 This flexible approach is reiterated throughout MfS2, which raises concerns over slavish adherence to guidance regardless of local context. For example, in paragraph 2.8.2, when considering rural areas, the guidance states: *"There is a considerable variation in the highway network running through rural areas from motorways to Green Lanes. The majority of other rural roads follow old pathways and boundaries and do not conform to present guidance on highway standards. Indeed to attempt to do so could be to the detriment of local character and lead to intrusion into some of our most outstanding landscapes."*

5.15 The safety record on the routes considered is likely to be a result of the predominantly local nature of drivers using the minor road network, which does not represent an obvious through-route to longer distance through-traffic. Local drivers will be aware of the constraints and potential hazards along the route. Conversely, due to its varying geometry, drivers unfamiliar with the routes could be expected to exercise a significant degree of caution when travelling along the local roads.

6 PROPOSED DEVELOPMENT

6.1 In terms of transport and highway matters, the proposed development at Oxted Quarry simply seeks to maintain the ongoing activities in terms of chalk extraction and restoration in accordance with the extant planning permission that extends to 2042.

6.2 The recent increase in the permitted level of imports to 200,000 tonnes per annum would result in additional HGV movements over the year, but not necessarily an increase in overall traffic during any given day.

6.3 Based upon an average payload of 17 tonnes per vehicle, the importing of 200,000 tonnes per annum, this equates to an average of 47 loads/94 movements per day over 250 working days per annum (assuming a 5 day working week, noting there tends to only be limited activity on occasional Saturdays at the site).

6.4 Based on the historic annual chalk production of 40,000 tonnes per annum and assuming the same 17 tonne payload, HGV movements associated with Chalk export are calculated to be an average of 10 loads/20 HGV movements per day.

6.5 By comparing the total of 57 loads/114 movements with the historic flows identified in Table 4.2 above, it is apparent that there have been numerous examples of days where the total daily flow exceeds the level identified above. It is also apparent that these movements have been accommodated on the local road network without resulting in significant adverse impacts in terms of highway capacity or safety.

6.6 In such circumstances, it is not anticipated that the ongoing operations at Oxted Quarry will result in any material change to the local highway network in terms of traffic flow or impact whilst the site remains active.

6.7 When taking into account the foregoing, the operator has agreed that should Surrey County Council wish to impose a limit on HGV movements associated with importing materials, an annual average of 50 loads/100 HGV movements per day, with a daily cap limit of 100 loads/200 HGV movements per day could be accommodated from an operational perspective and would therefore be acceptable.

6.8 It is noteworthy that a daily flow of 50 loads/100 HGV movements is comparable with historic activities at the site. A meeting note from 18 June 1959 between the operator and local authority confirmed "*About 250 lorry loads per week at peak periods go out (down to perhaps 150 at slack periods – distributed over S.E. England.*" As these figures represent loads out of the site, the figures should be doubled to obtain the total HGV movements of 500 and 300 per week respectively, which represent 100 movements and 60 movements per day based on a 5 day working week.

7 HIGHWAY IMPACT

7.1 The review undertaken reveals that the road network does have certain constraints in terms of its width, alignment and visibility in some locations. Notwithstanding these apparent constraints, the collision data provided by Surrey County Council indicates that the recent historic activities since 2007 have not led to a significant highway safety issue.

7.2 The local roads in the area have generally low volumes of traffic, which undoubtedly assists in maintaining a good safety record by naturally limiting the likelihood of vehicles meeting on the narrower sections of the route.

7.3 The peak hour flows on Chalkpit Lane when the site was not operational of 212 movements in September 2016 may be compared with the capacity of a single track road with passing places. A study undertaken by the Transport and Roads Research Laboratory (TRRL) now TRL considered the capacity of single track roads carrying traffic flows of between 50 and 300 movements per hour.

7.4 The findings of the study advise: *"Results from the TRRL studies indicate that simply in terms of their capacity for carrying moving traffic single lane carriageways, correctly designed, are unlikely to incur significant increases in delay compared with traffic in free flow conditions, at flow levels of up to 300 vph (total two-way)".*

7.5 In this case, much of Chalkpit Lane is wide enough for two cars to pass each other, which increases capacity and reduces delay. The relatively low number of HGV movements per day (up to 57 loads/114 movements on average) equates to just 10-11 movements per hour, or 1 movement every 5 - 6 minutes. Based on the advisory 20 mph speed limit for drivers, it would take between 2 – 3 minutes to travel between the site access and the junction between Chalkpit Lane and Barrow Green Road. By considering the typical journey time and average number of HGVs together, it is apparent that the potential for HGVs to meet along the narrower sections of the route are naturally limited by the low traffic volumes.

7.6 Having considered the baseline traffic volumes and those associated with operations at Oxted Quarry, it is apparent that the cumulative total flow should not breach the capacity of Chalkpit Lane.

8 ENVIRONMENTAL IMPACT

Traffic Noise

8.1 In terms of Environmental Impact, traffic noise is often identified as a significant concern where HGV traffic movements are being considered. In order to establish the likely noise impact of the proposed development, the Basic Noise Level (BNL) has been calculated

using the procedure detailed in Calculation of Road Traffic Noise (CRTN), which considers traffic volume, composition, speed, gradient etc.

8.2 The baseline BNL was calculated using the observed September 2016 survey data. Three calculations were undertaken based on carriageway gradients of 0%, 9.5% and 12%, which represents the range along Chalkpit Lane between the northern access and junction with Barrow Green Road. In order to allow a worst case comparison, the speed of traffic was based on the default of 30 mph and the application of CRTN guidance. Adopting a lower speed would reduce the noise contribution from the road traffic.

8.3 Based on the observed traffic flows when the site was closed, the BNLs at the increasing gradients were 58.6 dB(A), 60.8 dB(A) and 61.3 dB(A). By adding the average increase of 114 HGVs per day based on the combined total of imports at 200,000 tonnes per annum and exports of chalk at 40,000 tonnes per annum, the resulting BNLs increased to 60.7 dB(A), 63.0 dB(A) and 63.5 dB(A) at the increasing gradients from 0% to 12% respectively.

8.4 By comparing the BNLs with and without the Oxted Quarry traffic, it is apparent that the increases equate to between 2.1 to 2.2 dB(A).

8.5 The BNL calculations were also repeated based upon the peak increase recorded at the weighbridge of 362 HGV movements in a day. When added to the observed 2016 traffic flows without the quarry operating, this resulted in BNLs of 63.2 dB(A), 65.6 dB(A) and 66.3 dB(A) at the comparable gradients of 0%, 9.5% and 12% respectively.

8.6 By comparing these results with the September 2016 figures with no quarry traffic, the increases equate to 4.6 dB(A), 4.8 dB(A) and 5 dB(A) respectively.

8.7 In terms of the significance of this impact, reference may be made to the appraisal required for new road schemes contained in the Design Manual for Roads and Bridges (DMRB) Volume 11, which advises at Section 3, Part 7 HD213/11:

"3.5 *Determining the appropriate level of assessment is dependent upon threshold criteria being met. The threshold criteria used for traffic noise assessment during the day is a permanent change in magnitude of 1 dB LA10,18h in the short term (i.e. on opening) or a 3 dB LA10,18h change in the long term (typically 15 years after project opening)... The threshold criterion for traffic induced vibration is a PPV rise to above a level of 0.3 mm/s, or an existing level above 0.3 mm/s is predicted to increase."*

8.8 Tables 3.1 and 3.2 of HD213/11 summarise the significance of noise level changes over the short and long term periods respectively. For a short term impact a 1.4 dB(A) change falls within the range of 1 – 2.9 dB(A), which represents a Minor impact in Table 3.1. In Table 3.2, the same change falls within the range 0.1 – 2.9, which is identified as a negligible change over the longer term period.

8.9 HD213/11 provides advice on the impact of noise increases at paragraph 4.2: *"In terms of permanent impacts, a change of 1 dB(A) in the short-term (e.g. when a project is opened) is the smallest that is considered perceptible. In the long-term, a 3 dB(A) change is considered perceptible. Such increases in noise should be mitigated if possible."*

8.10 It is noted that this relates to a change in noise level and suggests that a change of 1 dB(A) may be noticeable for short term changes but a 3 dB(A) change would be required over the longer term. The site has been active for many years and is permitted to continue operating until 2042. In such circumstances it is apparent to consider the longer term impact criteria of a 3 dB(A) change, which is consistent with the threshold identified in the Institute of Environmental Assessment (IEA) Guidelines and the widely acknowledged level of human perception to traffic noise changes outside of laboratory conditions.

8.11 By comparing the contribution of the Oxted Quarry traffic to the noise levels on Chalkpit Lane, it is apparent that the increase of up to 5.0 dB(A) would occur on the single, busiest recorded day when 362 HGV movements occurred. This is classified as a "*Moderate*" impact within Table 3.2 of HD213/11. However, the assessment of traffic noise impact is based upon the 18 hour AAWT traffic flow figure, where AAWT is the Annual Average Weekday Traffic; that is the average Monday to Friday figure over the whole year.

8.12 When assessed using the average daily increase of 114 daily HGV movements associated with Oxted Quarry, it was found that the associated increase of up to 2.2 dB(A) falls below the 3 dB(A) threshold identified for longer term appraisal.

8.13 Having considered the foregoing, it is concluded that even on Chalkpit Lane, where baseline traffic flows are low and the Oxted Quarry traffic travels in both directions, the traffic noise impact is not significant in terms of its magnitude when assessed in isolation on the basis that it represents a new development, i.e. against a baseline with no quarry traffic on the network. On the busier routes, such as Barrow Green Road, where traffic volumes are higher and Oxted Quarry traffic is halved due to the one-way routing protocol, the impact of the development traffic would be further reduced by proportionate dilution within the baseline traffic flow.

8.14 When considering the fact that there is an extant permission to 2042 and a clear history of HGV use, the prevailing noise climate should include the quarry traffic within the baseline. When compared against this scenario, the proposed development represents no change to the prevailing conditions.

Vibration

8.15 HD213/11 provides the following advice in terms of vibration:

"3.15 Ground-borne vibration caused by the activities of heavy construction plant can become perceptible in dwellings and cause nuisance (Ref 21). People often express concern that vibrations they feel will cause structural damage to their dwelling. However, it has been shown that vibrations that can be felt indoors and which often cause

occupants anxiety are an order of magnitude smaller than would be needed to activate pre-existing strains and cause cracks to propagate. It should be borne in mind that superficial cracks in plaster around openings such as doors and windows can often appear during the life of a building.

3.29 Traffic vibration is a low frequency disturbance producing physical movement in buildings and their occupants. Vibration can be transmitted through the air or through the ground. Airborne vibration from traffic can be produced by the engines or exhausts of road vehicles and these are dominant in the audible frequency range of 50-100 Hz. Groundborne vibration is often in the 8-20 Hz range and is produced by the interaction between rolling wheels and the road surface (Ref 30).

3.30 Vibration can be measured in terms of Peak Particle Velocity, or PPV (i.e. the maximum speed of movement of a point in the ground during the passage of a source of vibration). For vibration from traffic, a PPV of 0.3 mm/s measured on a floor in the vertical direction is perceptible (Ref 32) and structural damage to buildings can occur when levels are above 10 mm/s (Ref 8). The level of annoyance caused will also depend on building type and usage, however, a building of historic value should not (unless it is structurally unsound) be assumed to be more sensitive.

3.32 PPVs in the structure of buildings close to heavily trafficked roads rarely exceed 2 mm/s and typically are below 1 mm/s. Normal use of a building such as closing doors, walking on suspended wooden floors and operating domestic appliances can generate similar levels of vibration to those from road traffic.

A5.25 Extensive research on a wide range of buildings of various ages and types has been carried out (Ref 30), but no evidence has been found to support the theory that traffic induced vibrations are a source of significant damage to buildings. Minor cracking of plaster may possibly occur at high exposure sites (i.e. existing heavily trafficked roads with poor surfaces and sub grade conditions) but it is very unlikely that this would be distinguishable from cracking due to other causes. There was no evidence that exposure to airborne vibration had caused even minor damage.

A5.26 Significant ground-borne vibrations may be generated by irregularities in the road surface. Such vibrations are unlikely to be important when considering disturbance from new roads and an assessment will only be necessary in exceptional circumstances. Furthermore, as the irregularities causing ground-borne vibration can be rectified during maintenance work, relief of these vibrations should not be presented as a benefit of a new road project.

A6.21 The relationship between the percentage of people bothered by largely airborne vibration and this noise exposure index is similar to that for noise nuisance except that the percentage of people bothered by vibration is lower at all exposure levels. For the purposes of predicting vibration nuisance, the curve in Figure A6.1 should be employed by making a suitable adjustment to the percentage bothered. For a given level of noise exposure the percentage of people bothered very much or quite a lot by vibration is 10% lower than the corresponding figure for noise nuisance. On average traffic induced vibration is expected to affect a very small percentage of people at exposure levels below 58 LA10 dB and therefore, zero per cent should be assumed in these cases."

8.16 Given that the lowest level at which any vibration impact is assessed is a BNL of 58 dB(A) and the highest predicted noise level on the steepest section of the route is 63.5 dB(A) when assessed correctly on the average daily flow, it is apparent that there is limited scope for people to be bothered by airborne vibration on Chalkpit Lane. Based on Figure A6.1 and the associated Table of Data from HD213/11, an increase of 2.2 dB(A) between 61.3 and 63.5 dB(A) would result in an increase from approximately 15% (at 61 - 62 dB(A)) to 19% (at 63 – 64 dB(A)) of people being bothered very much or quite a lot by traffic noise. However, based on the advice in paragraph A6.21, when allowing for the 10% reduction for people being bothered by vibration compared to noise, the percentages reduce to 5% and 9% respectively. Given the relatively low number of houses fronting Chalkpit Lane, the 4% variation is not considered to represent a significant impact when comparing the scenario where there was no activity at Oxted Quarry with the actual baseline condition.

8.17 If taking the peak day as the upper level and the highest noise level of 66.3 based upon the steepest gradient, the increase of 5.0 dB(A) would result in an increase from 15% (at 61 – 62 dB(A)) to 25% (at 66 – 67 dBA), which equates to 5% and 15% respectively when allowing for the 10% correction factor. Effectively, even under the worst case scenario, the noise / vibration impacts would bother an additional 10% of the residents if the highest daily flow of 362 HGV movements became the average weekday flow to/from the site over the whole year, which clearly could not occur given the limits to the quantum of material permitted to be imported per annum.

8.18 When considering the fact that there is an extant permission to 2042 and a clear history of HGV use, the prevailing vibration climate should include the quarry traffic within the baseline. When compared against this scenario, the proposed development represents no change to the prevailing conditions.

Community Effects/Severance

8.19 Effects on the community can arise as a result of a revised infrastructure layout, changes in traffic flow or both. In this case there are no proposed changes to the layout of the road network associated with the development, or indeed the prevailing traffic flows when compared with the extant planning permission. However, for comparison purposes an assessment has been undertaken between scenarios where there is no development at Oxted Quarry and with operations at the recent levels of activity to assess the impact of the variation in traffic flow.

8.20 Part 8 of DMRB Volume 11 advises assessments on the effects on communities be assessed on routes where traffic flows would increase or decrease by 30%.

8.21 DMRB 11 defines a reduction of circa 30% in built up areas as offering slight relief from severance, rising to reductions of 60 – 75% in rural areas to achieve the same level of relief. However, where the existing road is passing through a village or on the edge of a built up area the 30% threshold should be applied.

8.22 In this case, there are no sections of the local road network where changes of this magnitude would occur as a result of Oxted Quarry. The additional traffic attracted to Oxted Quarry based on the average daily flow of 114 movements represents an increase of just 6% of the daily flow and 7.2% of the 12 hour flow observed in September 2016 when the site was closed.

8.23 The Institute of Environmental Assessment (now Institute of Environmental Management and Assessment) "*Guidelines for the Environmental Assessment of Road Traffic*" 1993 provides information on pedestrian Amenity and Fear and Intimidation. In assessing the pleasantness of a journey, or the journey ambience it includes traffic noise and air quality, which have previously been considered, together with exposure to traffic flows, speeds and 18 hour HGV flow.

8.24 The guidance is based on the Manual for Environmental Assessment (MEA) of 1983. The Guidelines state *"The MEA suggests that a tentative threshold for judging the significance of changes in pedestrian amenity would be where the traffic flow (or its lorry component) is halved or doubled."* However, there is clearly a threshold at which flows would not realistically have a significant impact. For example, based on the statement above adding a single HGV per day to a route which already carried one HGV would be a 100% increase or doubling, but it would need to occur in exceptional circumstances for a single HGV movement per day to result in significant fear and intimidation.

8.25 The Guidelines provide an example of what may be considered moderate, great and extreme hazards in terms of average hourly traffic flows over an 18 hour day and total HGV flows over the 18 hour day. Moderate levels are identified to be 600 – 1200 vehicles per hour, 1000 – 2000 HGV movements per 18 hour day. By comparing the flows recorded at the ATC site on Chalkpit Lane over the 18 hour period it is established that peak hour traffic volume was 166 movements.

8.26 In terms of HGV traffic, the recorded flows fall significantly below 1000 vehicles per day at just 32 per day. Adding the average daily development traffic results in a total of just 146 HGV movements per day on Chalkpit Lane. If taking the peak daily activity of 362 HGV movements as the average, the proportions become 19.1% of the daily flow and 22.7% of the 12 hour flow observed in September 2016.

8.27 Similarly, based on the traffic volumes on Barrow Green Road, the peak hour flow of 376 vehicles and 12 hour daily HGV movements of up to 63 when the site was operational, do not approach the thresholds at which pedestrian amenity is affected to a moderate level, even if adding the busiest daily HGV flows recorded at Oxted Quarry to the observed movements recorded on the route.

8.28 Having considered the foregoing, whilst there would be more than a halving of HGV traffic on Chalkpit Lane should operations cease, the traffic flows involved are sufficiently low to fall below the threshold at which a moderate impact could be anticipated along this relatively short length of road. To the west and east via Barrow Green Road baseline traffic flows are higher, resulting in a reduced impact associated with Oxted Quarry.

8.29 Dust and dirt can also be a source of nuisance, particularly where quarrying and the transport of quarried materials takes place. The guidance confirms "*that the impact of dust and dirt will depend to a large extent, upon the management practices undertaken on site, e.g. washing-down wheels and sheeting*". The operator currently seeks to minimise adverse impacts of dust and dirt using:

- automatic wheel washing facilities;
- hand washing of vehicle under-body with power-wash
- damping down of access and haul roads plus other hardstanding areas;
- use of a roadsweeper; and
- sheeting of vehicles.

8.30 Having considered the foregoing, it is apparent that the proposed development would not have a significant detrimental impact on the local road network in terms of environmental matters.

9 CUMULATIVE IMPACT

9.1 Surrey County Council's Scoping Opinion required the cumulative impact of Oxted Quarry to be considered in the context of programmed/committed developments in the area. To confirm what developments should be included, the Highway Authority was consulted on 2nd May 2012. The response, received on 3rd May 2012 identified Oxted Sand Pit, which was also identified in the Scoping Opinion, and Palmer's Wood Oilfield.

Oxted Sand Pit

9.2 The inclusion of Oxted Sand Pit derived from comments made within the Inspector's Report on the Examination into the Surrey Minerals Plan Primary Aggregates DPD of May 2011, which specifically highlighted the potential cumulative impact and stated: "*A project transport assessment at application stage would be required to take account of the total volume of traffic movements connected with the preferred area and the restoration operations on the existing sandpit as well as other traffic on Barrow Green Road.*"

9.3 In March 2017, Surrey County Council Planning & Regulatory Committee resolved to grant planning permission (subject to a S106 Agreement) for the application MINERALS TA11/1075, which provides for the infilling of the site with inert waste for restoration purposes subject to 39 planning conditions. As confirmed in the Transport Statement of July 2011, which accompanies and forms part of the Environmental Statement accompanying the planning application, "*The site has an extant permission permitting 110 movements per day*". This limit has been accepted by Surrey County Council and carried through to the suggested planning conditions, with a reduction to 60 per day on Saturdays (at N0.10 of the 22 March 2017 Planning & Regulatory Committee Report). The development would also be subject to an 8 year time limit following the date of the permission being granted (at condition 3).

9.4 As part of the proposed Oxted Sand Pit development, the existing access arrangement would be revised under a S278 Agreement to prevent HGVs turning right into, or left out

of the site access, which is located approximately 350m from the Barrow Green Lane/A25 roundabout. This arrangement would concentrate the HGV activity along the short section of Barrow Green Road between the site access and the A25 roundabout. A routing agreement is also proposed to reinforce the requirement for all deliveries to approach from the west along Barrow Green Road.

9.5 In addition to these measures, the developer of Oxted Sand Pit is also proposing to implement localised widening on the bends between the site access and the A25 to ensure HGVs travelling in opposite directions can pass each other.

9.6 The baseline traffic flows within the Oxted Sand Pit Transport Statement were recorded when Oxted Quarry was operational, and therefore considered the cumulative impact of the two sites at that time. The improvements identified within the Transport Statement for the sandpit would be suitable to accommodate the free movement of HGV traffic travelling in both directions along the western section of Barrow Green Road, The applicant has considered the environmental impact of the proposed Sand Pit development in conjunction with the activities at Oxted Quarry and concluded that subject to the proposed improvements "*The landfill operation would therefore not result in any material adverse impacts on highway capacity, safety or traffic related environmental conditions.*"

9.7 As a result of its resolution to grant planning permission subject to the suggested conditions and S106 agreement, Surrey County Council must be satisfied that the proposed development is acceptable, or may be made acceptable subject to deliverable conditions, thereby accepting the cumulative impact is acceptable. Were that not the case, Surrey County Council may have refused planning permission. As a result, the cumulative impact associated with Oxted Sand Pit should not be considered relevant to the determination of the ROMP for Oxted Quarry.

Palmer's Wood Oilfield

9.8 Palmers Wood Oilfield is primarily accessed from the A22, to the south of M25 Junction 6. However, the site also has an access to Barrow Green Road approximately 190m to the northeast of that serving Oxted Sand Pit. The Officer's report to the Planning and Regulatory Committee dated 16 February 2011 for application TA10/0060 considered the cumulative impact of the proposed restoration of the site by 30 September 2025.

9.9 Under the heading Highways, Traffic and Access, paragraph 126 of the report to Committee advises "*Vehicles accessing or exiting from Palmers Wood Oilfield do so from the Rooks Nest wellsite only. There is a direct junction off of the A 22 Godstone Bypass leading to a tarmac access road, part of which is initially shared with occupiers of the Streete Court Complex. The final part of the access road has a barrier before going uphill northwards to the Rooks Nest compound. The unmade access track to the Coney Hill compound from Barrow Green Road is only used by site staff and is kept gated and locked. The proposed development at Palmers Wood Oilfield, would not involve any additional vehicle movements over and above the tanker movements generated by the export of oil and the site staff vehicle movements*".

9.10 Paragraph 134 of the report to Committee identifies concerns raised by an objector: *"In particular he refers to additional traffic associated with the Godstone Golf Club, the vehicle movements associated with the filling at Oxted Chalkpit and vehicles associated with Oxted Sandpit".*

9.11 Paragraph 136 of the report to Committee advises: *"Had the oilfield site been restored in 2004 there would clearly not be any vehicle movements associated with the oilfield, but the Highway Authority has pointed out that as Palmers Wood Oilfield is currently operational, any traffic assessment of developments requiring planning permission in the area should take into account the existing traffic conditions on the highway network, which would include the traffic associated with oil extraction. The total traffic generation of the site is currently not significant and it will not be increased by the extension of the production period".*

9.12 Paragraph 137 continues: *"HGVs accessing Oxted Chalkpit travel up Barrow Green Road and although not all HGVs leaving the chalkpit use the same route, a worst case scenario account can be taken of all Chalkpit HGVs exiting via Barrow Green Road. Whilst the Coney Hill compound is accessed from Barrow Green Road, a member of staff in a LGV visits the compound once a day and the remainder of the time the access is gated and locked."*

9.13 It is apparent from the preceding paragraph, that in assessing the impact of the proposed development at Palmers Wood Oilfield, the Council has assessed the cumulative impact on the assumption that all of the traffic travelling to/from Oxted Quarry (the Chalkpit), does so via Barrow Green Road, past the access to the Coney Hill Compound. As has been described previously, Oxted Quarry operates a one-way system by agreement with Surrey County Council, which effectively halves the volume of Oxted Quarry traffic travelling along the western section of Barrow Green Road and reduces the potential for HGVs travelling in opposite directions to meet along the route.

9.14 At paragraph 138 of the report to Committee, the cumulative impact of with Oxted Sandpit is considered: *"Another mineral working in the vicinity is Oxted Sandpit which has been worked for sand but has yet to be filled. Currently the site is closed but a planning application has recently been made to extend the time for infilling and restoration of Oxted Sandpit. Whilst the application was deemed invalid and was returned to the applicant, it is understood that it is the applicant's intention to resubmit in the near future. The extant planning permission at Oxted Sandpit allows for 110 HGV movements per day Monday to Friday and 60 on a Saturday. Oxted Sandpit has an access onto Barrow Green Road and therefore the traffic situation in relation to any vehicle movements associated with the Oilfield is the same as discussed in the paragraph above for Oxted Chalkpit. Nevertheless, whereas the Chalkpit would still be operational when Coney Hill is decommissioned and restored, based on the amount of fill required and the timescales involved, the filling of Oxted Sandpit would have ceased."*

9.15 The report to Committee confirms that "a *detailed programme of decommissioning and restoration works has not been prepared as it could be another 13 years before this takes place. However, the main activities associated with the decommissioning and restoration of proposal provides some idea of the anticipated level of vehicle movements*". A table

within the report to Committee indicates the restoration would take place over a one year period. In terms of the Coney Hill access from Barrow Green Road, the importation of 1,600m³ of topsoil would attract 10 HGVs/20 movements over a 2 week period; the importation of trees and plants would attract 3 HGVs/6 movements over a 3 week period; and the importation of plant and equipment involved in the restoration activity would take place over 2 weeks and attract 5 HGVs/10 movements. In addition, during the restoration period it is estimated that there would be an average of 4 cars/vans per day resulting in 8 movements.

9.16 Taking the worst case scenario whereby all of the identified HGV activities took place within a two week period, the total number of movements equates to 36 spread over 11 working days (07:00 – 18:00 Monday to Friday and 07:00 – 13:00 on Saturday). This equates to an average of 4 HGV movements per day (2 in/2 out) over a 2 week period. This variation is insignificant and well within the range of day to day variation observed on Barrow Green Road in May 2011 during the preparation of the Transport Statement for Oxted Sand Pit, which revealed a range of 35 movements (63 – 28) over the survey period.

9.17 When concluding on transport matters, paragraph 157 of the report to Committee states: *"The Highway Authority has assessed the development proposal and based on the information provided has concluded that the application would have a minimal transportation impact and has no objection to the proposal."*

9.18 Having considered the foregoing, it is apparent that in terms of potential cumulative impact, the Highway Authority has recently considered the Palmers Wood oilfield development set against a baseline assuming a worst case in terms of traffic attractions to Oxted Quarry and deemed the proposal acceptable, subject to conditions.

9.19 It has confirmed that there would not be a combined cumulative impact between all three sites due to the timing of the Sand Pit restoration, should it be approved, relative to the Palmers Wood development. Given that the application for the Oxted Sand Pit restoration is yet to be determined, it is clear that either the permission will be granted, thereby accepting the cumulative impact with Oxted Quarry to 2018, or refused, in which case there would be no cumulative impact with Oxted Quarry.

9.20 It is therefore concluded that the potential cumulative impact associated with Oxted Quarry and other developments specified by Surrey County Council should not influence the determination of the ROMP application.

10 MITIGATION & CONDITIONS

10.1 The review undertaken has revealed that the historic activities at Oxted Quarry have not led to unacceptable impacts on the local highway network when compared against nationally recognised thresholds and guidance. This conclusion has also been reached when assessing the impact based on the assumption that the highest level of recorded activity at the site (362 HGV movements per day) occurred every day as an average figure.

10.2 It is recognised that the local road network is constrained in terms of its geometric layout and falls short of modern desirable standards for HGV access. However, that in itself does not signify that the operations at the site are intrinsically unacceptable. Despite the apparent constraints on the local road network, the safety record is generally very good, with only a single reported personal injury collision associated with the HGV activity from the site in the last 9 years. The circumstances of the collision indicate the HGV driver was not at fault in the reported collision.

10.3 The operator currently has site rules requiring drivers to ensure their vehicles are free from chalk or mud before leaving the site; to follow the specified one-way system agreed by Surrey County Council and a request to observe a 20 mph speed limit on local roads in consideration to local residents.

10.4 In terms of the potential for conflict, reference to the "Reported road casualties: Great Britain annual report 2015" of September 2016 confirms at RAS20001 *"Vehicles involved in reported accidents and involvement rates by vehicle type and severity of accident, Great Britain, 2005 – 2015"* that HGVs are involved in 388 accidents per billion miles travelled on the road network. This equates to 1 HGV accident every 2,577,319.6 miles travelled.

10.5 Taking into account the length of Chalkpit Lane between the site access and Barrow Green Road (approximately 1.1km / 0.68 miles), based on 275 working days per annum (assuming regular working on Saturday mornings) at the peak daily flow of 362 HGV movements per day it is calculated that there would be 67,694 HGV miles per annum travelled.

10.6 It is therefore calculated that based on observed HGV collision rates, it should take approximately 38 years for an injury collision involving a HGV associated with the site to occur on Chalkpit Lane, assuming the highest daily flow recorded was achieved every working day of every year. Based upon the resumption of operations in 2016 at that level, there could potentially be 1 collision between now and when the extant planning permission expires in 2042, as a second collision would not be anticipated until around 2054 at the earliest.

10.7 This level of risk is no worse than would arise as a result of setting a limit at the lower level of 56 movements per day suggested by SCC, which equates to a prediction of 1

HGV collision every 222 years. As a result, 1 collision could also occur during the permitted life of activities at the site.

10.8 The site has a wheel and lorry washing facilities and a sealed surface access road to assist in reducing the potential for detritus to be deposited on the highway.

10.9 In terms of traffic noise, the speed restriction advised in the Site Rules is particularly beneficial. HD213/11 advises *"The effect of the speed of vehicles on noise level is one of the most fundamental in the noise prediction process. Above 40 km/hr, noise level increases with the speed of the vehicle and a reduction in speed will normally cause a reduction in noise level."* Travelling at 20 mph (32 km/hr) therefore minimises the impact of noise generated by traffic.

10.10 In terms of vibration, airborne sources are closely linked to traffic noise levels. As has been demonstrated, the impact on noise levels associated with Oxted Quarry would not have a significant impact on airborne vibration. In terms of ground borne vibration, imperfections in the road surface are the main cause. The monitoring of surface condition is an important part in preventing traffic induced vibration. It is therefore recommended that the operator reports any defects to the Highway Authority at the earliest opportunity to assist in the speedy repair of the carriageway in order to minimise adverse impacts.

10.11 In terms of planning conditions, it is important to ensure that additional or revised conditions do not restrict the working rights in respect of the site. As Oxted Quarry has operated for many years and its ongoing use has not led to unsatisfactory impacts on the network, it would appear that the existing conditions are adequate. However, this is likely to be a result of the Site Rules voluntarily imposed by the operator.

10.12 SCC does not propose to impose any limit on the number of vehicle movements associated with chalk extraction/export. Given that the same types of vehicle would be used and they would be unrestricted, there is no logical or defensible reason why it would be necessary to impose a limit on the same types of vehicle simply because they are transporting a different type of material. In terms of the highway network, their respective impact would be identical.

10.13 It was noted that the mirror opposite the site access had been damaged by a falling tree. Whilst it may be the case that the mirror was provided to assist the neighbouring dwelling, it is likely that some drivers would also have made use of it when exiting the site, due to the restricted view to the left. It is therefore recommended that the mirror be replaced.

10.14 It is understood that there had historically been occasions when vehicles have been waiting to use the weighbridge resulting in queuing back to Chalkpit Lane. The operator has taken steps to remedy this by installing a weighbridge further into the site, which is a sensible response to the problem. It is understood that the Council may require a planning application to regularise the relocated weighbridge. Should that be the case, it is recommended that this be included as part of the ROMP process.

10.15 In order to maintain this pro-active management, consideration could be given to imposing an additional planning condition requiring the Site Rules to be maintained in perpetuity for the life of the development, subject to periodic review in response to matters arising and best practice procedures.

11 RESIDENTS' CONCERNS

11.1 There is a history of concerns being expressed by residents regarding the use of Chalkpit Lane by HGV traffic travelling to/from Oxted Quarry. An Officer Report to Local Committee (Tandridge) dated 7th May 2008 was submitted by SCC, which referred to a petition of 425 signatures.

11.2 Having considered various options and consulted with the Police regarding existing use and potential alternatives, the report concluded at paragraph 10.1:

"Whilst it is recognised that the problems of HGV traffic are unacceptable to local residents, the County Council, District Council and Surrey Police are unable to remove the problem. Amelioration measures are possible but will not reduce the number of HGVs using the roads. Oxted Quarry's haul road proposal seems favourable provided the traffic is not able to use Woldingham local roads as an alternative."

11.3 The haul road proposal referred to was a scheme to deliver an alternative access to The Ridge, which would divert Quarry traffic away from Chalkpit Lane and its acceptability was subject to an assessment of the impact associated with the diversion.

11.4 Paragraph 10.3 of the report states: *"If the HGV traffic on Oxted roads were not removed, it would be appropriate to give further consideration to measures that could ameliorate some of the effects. Feasibility studies and public consultation would be desirable to determine the most appropriate measures. The Local Committee could consider providing funds for this work at a future meeting."*

11.5 SCC subsequently instructed TPS *"to investigate and report on possible solutions for the problems associated with the Heavy Goods Vehicle (HGV) movements to and from the Oxted Chalk Quarry"*, as confirmed in the Executive Summary of the *"Heavy Goods Vehicle (HGV) Routes in Oxted Investigation Report"* of 21 August 2008.

11.6 The TPS report refers to the 425 signature petition and the SCC Report of 7 May 2008. At section 1.2 is also confirms: *"In May 2008, a second petition with over 1,200 signatures from residents of Chelsham & Farleigh, Godstone, Limpsfield, Tatsfield, Titsey, Warlingham, Whyteleafe and Woldingham requesting measures to prevent HGV traffic affecting their communities was presented to the Tandridge Local Committee."*

11.7 These are the communities that could have been affected had the haul route proposal been progressed.

11.8 In Section 2.1 of the report the traffic flows associated with the permitted activity were considered. It is noted that TPS, appointed by SCC considered the flows as an average figure over a year. It also highlighted the variation in the level of imports on a quarterly basis from April 2007 to March 2008.

11.9 Section 2.2 of the report highlights Residents Concerns regarding HGV activity. Section 3.1.1 advises: *"Chalkpit Lane is narrow with the road width varying from approximately 4.1m to 5.3m. The road is sinuous with a hairpin radius of some 20m, and is steep at about a 1 in 5 gradient. HGVs appear to currently navigate this section in spite of the width of the road, the gradient and the bendiness."*

11.10 It highlights the presence of the railway bridge at which only one direction of travel at a time is possible by HGV traffic, together with the absence of traffic management at that location.

11.11 Section 3.1.1.2 details traffic flows on Chalkpit Lane, which were observed independently. It also refers to a residents' survey which reports 60 loads per day travelling to Oxted Quarry and also a range of 60 – 80 trips to and from the site on a busy day, as confirmed by the operator.

11.12 Section 3.1.1.7 specifically considers HGV traffic. It states: *"It can be concluded that the number of HGVs using Chalkpit Lane is not considered very high when compared to other residential narrow roads within Tandridge and Oxted."*

11.13 Section 3.1.1.8 considered highway safety and confirmed that no recorded accidents involved HGVs.

11.14 At Section 3.1.1.9 the report confirms that *"...the key concerns with Chalkpit Lane are the speed and traffic levels, the road layout, the junction with The Ridge, the width restriction, the restriction at the railway bridge, the existing trees and foliage."* It does not state whether these are the residents' concerns or those of the Author of the report.

11.15 Section 4.2 of the report considers measures that could potentially be implemented to assist in mitigating or reducing the impact of HGV traffic. One option was the use of smaller vehicles; although it is recognised that this would result in a greater number of vehicle movements carrying smaller loads to transport the same quantity of material. The converse argument is that putting a limit on the number of loads would force the operator to restrict imports to contracts where larger vehicles are used in order to reach the daily levels of infill previously achieved.

11.16 Another option was widening the existing access and a further option was widening Chalkpit Lane itself. However, the availability of land to implement the improvements was identified as a constraint with an unknown cost to overcome.

11.17 One-way systems or restrictions directing traffic to or from the north along Chalkpit Lane to The Ridge were also considered, as was the option of the haul route connecting to The Ridge. However, these options have many potential issues that would need to be considered and overcome, in terms of safety impacts on the wider highway network. They would also need to consider the 1200 objections raised in the petition from residents living in areas to the north and along the potentially affected diversion routes.

11.18 The signalisation of the railway bridge on Chalkpit Lane was suggested, with an estimated cost of £100,000 in 2008, as was the imposition of parking restrictions along Chalkpit Lane in order to ease traffic flow; with an estimated cost of £25,000 in 2008.

11.19 A direct link to the M25 was considered. However, this would require access over third party land and approval of Highways England, which has a Policy against the creation of direct accesses to the Motorway network.

11.20 Section 6.1 of the report details the Preferred Option. In terms of Chalkpit Lane, the Short Term suggestions were to widen the existing site access; implement traffic calming between the site access and Gordon's Way; and install signals at the railway bridge near Gordon's Way. In the Medium Term, it was suggested that Chalkpit Lane be widened between the arched railway bridge and Barrow Green Road. In the Long Term, it was recommended that the previous measures be monitored and evaluated in terms of their success. Should issues remain, it was recommended that the northern options such as the haul route to The Ridge be re-evaluated.

11.21 It is noted that other than widening the access and traffic calming between the access and Gordon's Way, no improvements were suggested. A Traffic Calming feature was subsequently installed approximately 140m to the south of the M25.

11.22 Neither the access improvements at the site nor the traffic calming feature would result in reduced HGV traffic flows along Chalkpit Lane. The proposed widening of Chalkpit Lane to the south of the railway bridge is also located beyond the majority of the residential dwellings, where only 4 houses exist.

11.23 The report did not consider the capacity of the local road network or its ability to accommodate existing or anticipated cumulative traffic volumes. It did, however, confirm that the number of HGVs using Chalkpit Lane was not high when considered in the context of comparable routes in the area.

11.24 Having recommended traffic calming measures, it was recognised within the report that some restriction on movement would be acceptable and desirable. The signalisation of the railway bridge would reduce the potential for conflict should drivers meet at the bridge, but whilst the potential for congestion was mentioned within the report, no quantified assessment of the level of existing or future congestion was undertaken.

11.25 Having assessed the capacity of the route, it is our conclusion that congestion would not be significant in real terms given the low cumulative flows, which remain below published design flows.

11.26 A further Officer Report to Local Committee (Tandridge) dated 5th September 2008 was submitted by SCC, which referred to the TPS study. The Summary of the report advised *"The estimated cost of these measures exceeds available budgets. It is therefore recommended that the measures be progressed subject to the availability of funding in the future."* The report also confirmed that the TPS study had cost in excess of the £10,000 budget allocated by the Local Committee in June 2008 from the 2008/09 Local Transport Plan budget for investigation work on the Heavy Goods Vehicle (HGV) problems in Oxted.

11.27 It is apparent that almost nine years later, the measures proposed on Chalkpit Lane within the report have not been considered sufficiently important within the overall transport hierarchy to justify the allocation of resources on a cost / benefit basis. Having reviewed the impact of the traffic associated with the activities at Oxted Quarry, both in terms of average and peak daily HGV flows, this is not surprising, as in technical terms, the network can demonstrably accommodate the lawful activities at the site.

11.28 Despite this, the Highway Authority is seeking to impose conditions on the operator which restrict activities at the site. SCC sought to justify the suggested conditions on the basis that the assessment had only considered a flow of up to 56 HGV movements per day, which is disputed on the basis that the original ROMP TS considered all activity at the site over a specified period of time, including the safety implications of the peaks and troughs in daily activity. SCC has subsequently revised its proposed restrictions to an annual average of 56 HGV movements per day with a maximum daily flow of 150 movements.

11.29 Notwithstanding this suggestion by SCC, this updated report specifically considers the highest level of daily and hourly activity recorded at the site between 2008 and 2011 and also the annual average of 114 movements per day based upon the increased level of permitted imports to the site. The review of both scenarios leads to the same overall conclusions in terms of the technical and environmental impact of the proposed development on the local road network.

11.30 As a result, should SCC consider a maximum daily limit of HGV flows should be imposed on infill traffic, based on the findings of this review a figure of 362 movements per day (181 in / 181 out) could be justified based upon the fact that the network has demonstrably accommodate that scale of activity without resulting in unacceptable impacts in terms of highway capacity or safety. Notwithstanding this, as no limit is proposed on the quantum of HGV traffic associated with transporting chalk from the site, it is our opinion that imposing a restriction on infill traffic would be unnecessary and would have little practical benefit in real terms as the same number of the same vehicles could legitimately travel along Chalkpit Lane on any given day provided they are carrying chalk rather than fill material. As previously stated, in terms of practical highway impact, the two scenarios are the same.

11.31 Notwithstanding this, should SCC insist upon the imposition of a daily limit in terms of HGV movements associated with the importing of infill materials, the annual average of 50 loads/100 HGV movements per day with a cap limit of 100 loads/200 HGV movements per day, could be accommodated operationally.

11.32 SCC also seeks to impose restrictions during the peak hour periods for school traffic during the day (08:00 – 09:00 and 15:00 – 16:00), which prevent HGVs controlled by the operator from leaving the site. However, as demonstrated by the review undertaken, the cumulative traffic levels are within design capacity for the route. Whilst there may be a benefit in terms of local perception, the restriction would not be justified on any technical basis and is therefore considered unnecessary in our professional opinion. It is impractical to restrict arrivals, as vehicles may be delayed en-route by congestion, such as that frequently occurring on the M25 Motorway. HGV drivers already have limits imposed upon their driving hours, and introducing a further delay would be unacceptable and unnecessary based upon the evidence of use. Such restrictions may also be counter-productive in terms of highway safety, as it may encourage drivers to travel more quickly in order to avoid the potential delay should they not be clear of the site before the cut-off times. It would also be difficult to accommodate operationally, as there is no suitable space within which HGVs that have already arrived or may continue to arrive, could be held during these periods. As a result, this could lead to queuing on the highway, which would be undesirable.

11.33 It is understood that some queuing has occurred historically. In order to alleviate this, the weighbridge has been relocated into the site, which has increased the distance between it and the public highway. Historically, two HGVs could queue at the weighbridge without obstructing Chalkpit Lane. As a result of the revisions, this has increased the available queuing space to six HGVs. In addition, a weighbridge has been installed for outbound HGVs. As a result of this addition, each HGV must be washed and cross the weighbridge to be weighed before leaving the site. The time taken for this to occur creates a natural break between HGVs leaving Oxted Quarry, which in turn overcomes the concerns expressed by SCC regarding the likelihood of 2 HGVs leaving the site at the same time as a convoy; as the second HGV can be held at the weighbridge until the vehicle ahead has cleared the access junction and joined Chalkpit Lane.

11.34 SCC is also seeking to impose a requirement for condition surveys of Chalkpit Lane based upon the perception that the HGVs are causing damage to the carriageway and verges. As confirmed by the traffic surveys provided by SCC, other HGVs not associated with Oxted Quarry use Chalkpit Lane. It is not known whether the drivers of such vehicles operate to the similar restrictions the operator seeks to impose via the Site Rules and their enforcement, which the SCC report of 7th May 2008 confirmed appeared to be effective.

11.35 The Highway Authority already has powers to seek recompense for extraordinary wear and tear under Section 59 of the Highways Act 1980, in the event it can demonstrate this has occurred and is attributable to a particular individual or organisation. As a result, it is not considered necessary, fair or reasonable to impose a condition which duplicates these existing powers and imposes an additional burden upon the operator, who has been pro-active in engaging with the Authority in order to minimise the impact of the HGV

traffic associated with the site, as far as practically possible without adversely affecting the business.

11.36 We also understand that SCC installed kerbs along the northern part of the route in 2003 but has not had cause to undertake any extraordinary maintenance to date, despite the regular use of the route by HGVs travelling to / from Oxted Quarry until 2012 and other HGVs since then. SCC has confirmed that no maintenance or repairs have been undertaken for at least 5 years beyond routine works such as gulley cleaning etc.

11.37 In response to the increased import levels allowed by the Environment Agency permit, SCC has suggested additional improvements it would like the operator to implement on the highway. The first is the provision of a pavement (footway) between the Scout Hut on Chalkpit Lane and Barrow Green Road. It is apparent that there is no evidence of HGV conflict with pedestrians along this section of Chalkpit Lane, as confirmed by the collision data provided by SCC. Given the daily/hourly HGV volumes are comparable with those historically occurring on the route, it appears that provision by the operator is not justified.

11.38 The second suggestion is the provision of traffic lights at the railway bridge on Chalkpit Lane. This was suggested in the report prepared for SCC historically. As described above, the works have not been considered to be justified for capital expenditure by SCC during the last nine years or thereabouts. Given the daily/hourly HGV volumes are comparable with those historically occurring on the route, and which have been safely accommodated at the bridge, it appears that provision by the operator is not justified.

11.39 The third request was for the provision of a vehicle activated electronic speed sign to be installed on Chalkpit Lane for vehicles coming from the Chalkpit, opposite the junction with Hamfield Close, based on the Council's belief that this is where vehicles appear to be going fastest. The fourth request was consideration of a 20 mph speed restriction at least between Hamfield Close and Barrow Green Road.

11.40 Taking the third and fourth request together, the Site Rules, which each driver visiting the site must sign up to, requires HGV drivers adopt a maximum speed of 20 mph on local roads, in consideration of residents. As a result, should drivers not accord with this request, they will be prevented from visiting the site. Should HGVs travelling to/from Oxted Quarry be observed to be travelling quickly, they should be reported to the operator, who will take the necessary action. Notwithstanding this, the imposition of a formal 20 mph limit would reinforce the existing Site Rule and would be supported by the operator. However, the operator cannot implement the necessary Traffic Regulation Order to impose a 20 mph speed limit. This must be done by the Council. The operator would be prepared to contribute £5000 towards the costs of advertising and implementing the Traffic Regulation Order for a 20 mph speed limit on Chalkpit Lane and/or provision of a vehicle actuated sign.

11.41 The final request was the provision of traffic signals where Chalkpit Lane narrows north of the M25 bridge and the Quarry. Due to the length between STOP lines, and taking into account the use of Chalkpit Lane by cyclists, together with its gradient, the signalisation of this section of the highway is likely to increase the potential for conflict to occur. In order to be effective, it would be necessary to provide a 3 way control between the northern and

southern sections of Chalkpit Lane and the access to Oxted Quarry. It would also be necessary to provide adequate clearance time between the stop lines between each green phase on each approach. Failure to do so could result in a driver travelling in one direction, probably at increased speed on the assumption that nothing was travelling in the opposite direction, only to encounter a cyclist head-on, which had not cleared the controlled section from the earlier stage. This would result in significant inter-green time during which queues would form along the approaches; possibly extending to the sharp bend to the north of the accesses.

11.42 Signals at the site access would also increase the likelihood of HGVs travelling in convoy along Chalkpit Lane, as they would be held back on a red light then released together on a green light. When considering SCC specifically seeks to prevent HGVs travelling together, it is considered that this last suggestion would be counter-productive in terms of highway safety and capacity. As a result, this provision is considered inappropriate and is not supported by the operator.

11.43 In terms of assessing the acceptability of the ongoing activities and the requirement for further works within the highway, the national policy test for highway impact is set out in the National Planning Policy Framework at paragraph 32, which states:

"All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- *safe and suitable access to the site can be achieved for all people; and*
- *improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."*

11.44 This test has been reiterated in the Planning Practice Guidance (revised 06 March 2014) which advises in paragraph 005 within the "*Overarching principles on Travel Plans, Transport Assessments and Statements*" section, "*Transport Assessments and Statements can be used to establish whether the residual transport impacts of a proposed development are likely to be "severe", which may be a reason for refusal, in accordance with the National Planning Policy Framework*".

11.45 A severe impact is a high threshold to breach. By reference to the relevant Environmental thresholds detailed previously, it is apparent that the development traffic would not reach severe levels of impact, even based on the highest recorded hourly and daily traffic flows to/from the site.

11.46 Similarly, when assessing the safety and capacity of the network, it is apparent that the higher traffic volume would not result in a severe impact.

11.47 Having considered the foregoing, it is concluded that subject to the retention of the existing planning conditions and the management protocols adopted by the operator, which would be retained as a minimum requirement throughout the operational life of the site and subject to review in order to take advantage to achieve improvement through emerging technologies or initiatives, as appropriate, there is no reason to conclude the continuation of the operations at the site would have an unacceptable impact on the local highway network that would justify the imposition of additional planning conditions.

11.48 In the event SCC considers it is essential that a daily limit is imposed on the number of HGV movements associated with infill activities, the review undertaken demonstrates the peak figure of 362 movements per day may be justified based upon the evidential facts and national guidance. Notwithstanding this, the operator has confirmed that an annual average of 100 HGV movements (50 in/50 out) per day with a cap limit of 200 HGV movements (100 in/100 out per day) could be accommodated operationally.

12 SUMMARY

12.1 Oxted Quarry consists of 27 hectares (67 acres) of land in total, bounded by the "C" class roads known as Chalkpit Lane on the east and Woldingham Road on the north. The site is located approximately 2km to the northwest of the centre of Oxted.

12.2 The site is accessed via Chalkpit Lane which has a width restriction immediately to the north of the northern site access, resulting in all HGV traffic approaching from and departing to the south of the site via Oxted. A voluntary one-way system is in operation whereby all traffic approaching the site enters from the west of Chalkpit Lane and departing traffic leaves to the east via Barrow Green Road.

12.3 Under the Town and Country Planning (Environmental Impact Assessment) Regulations 2011, an Environmental Impact Assessment (EIA) is required to accompany the Environment Act 1995 Periodic Review of Mining Sites (ROMP) of planning permission reference TA 93/0765 relating to Oxted Quarry.

12.4 Oxted Quarry produces chalk which is spread on agricultural land to improve soil fertility and increase crop yield as well as being used as a general construction fill material. The site is also used for the disposal of naturally occurring inert waste materials in accordance with the approved restoration scheme. The restoration scheme for the site is to reinstate the extraction area largely back to original ground levels using inert infill. The site would be restored to agricultural land with areas of tree and shrub planting and conservation habitats.

12.5 The existing planning permission under which the existing activities are undertaken extends to 21 February 2042.

12.6 Southern Gravel Limited, the operator of the Oxted Quarry, instructed The Hurlstone Partnership Limited to review the highways and transport elements relevant to the ROMP submission, as indicated in Surrey County Council's Scoping Opinion of 1st May 2012.

12.7 In order to assist the review, empirical traffic survey data for the local road network has been purchased from Surrey County Council and analysed in the context of the extant permission and current design guidance.

12.8 The review revealed that whilst the local roads have constraints in terms of their geometric alignment, they also carry relatively low traffic volumes. The review of the safety performance of the local roads revealed there are no specific characteristics of the network that lead to unacceptable impacts associated with the HGV activity based on recent historic use.

12.9 The capacity of the local roads was reviewed and found to be acceptable.

12.10 The proposed development is not predicted to increase traffic activity beyond levels recently accommodated on the local road network.

12.11 The review was reported in a Transport Statement (TS) which formed part of the ROMP submission. The review revealed that whilst the local roads have constraints in terms of their geometric alignment, they also carry relatively low traffic volumes. The review of the safety performance of the local roads revealed there are no specific characteristics of the network that lead to unacceptable impacts associated with the HGV activity based on recent historic use.

12.12 The TS considered annual traffic flows from weighbridge data recorded over a period between 2008 and 2011 and expressed the daily traffic flows associated with Oxted Quarry in terms of annual average figures, which are consistent with the figures used when assessing highway capacity and associated environmental issues, such as traffic noise etc.

12.13 It was found that the capacity of the local roads was acceptable and that the ongoing development proposed was not predicted to increase traffic activity beyond levels recently accommodated on the local road network.

12.14 A review of the recent traffic volumes associated with the site in terms of highway and environmental implications revealed that the impacts are acceptable when compared against nationally recognised guidance and thresholds.

12.15 Potential additional planning conditions to formalise the existing voluntary Site Rules were suggested, which are considered to contribute towards the favourable highway safety record and minimising the potential adverse impacts associated with ongoing operations at Oxted Quarry.

12.16 It was also proposed to regularise the relocation of the weighbridge within the site to reduce the potential for queuing to occur on Chalkpit Lane via the ROMP process.

12.17 Notwithstanding these findings Surrey County Council (SCC) sought to impose additional restrictions on the operator via new planning conditions, which imposed a maximum daily limit based on the annual average figure detailed in the TS. This would not allow any flexibility in day to day variations which clearly led to and underpinned the calculation of an average figure.

12.18 SCC sought to justify its stance on the basis that in its view, no assessment had been undertaken of a figure higher than the average and therefore there was no evidence to suggest a higher level of activity could be accommodated, despite the fact that the safety assessment specifically covered the preceding years when the day to day variations had been accommodated.

12.19 In order to address SCC's concerns, the review undertaken has been repeated using the highest daily and hourly flows recorded at Oxted Quarry weighbridge during the period considered, which equates to 362 HGV movements per day (181 in / 181 out), noting that this one-off daily peak was considerably higher than the next highest day during the period.

12.20 In summary, even with the highest daily flows being considered, it was found that the impact of the operations at Oxted Quarry would not breach acceptable highway capacity, safety or environmental thresholds.

12.21 This updated Transport Statement also considers the increase in traffic associated with the uplift in permitted waste imports to 200,000 tonnes per annum, which, when combined with the typical HGV activity associated with chalk exports at 40,000 tonnes per annum, results in an average of 57 loads /114 HGV movements per day. Both this quantum of site traffic and that associated with the peak daily flow recorded at the site of 362 HGV movements per day (181 in / 181 out) have been assessed in the context of updated traffic survey data on Chalkpit Lane provided by SCC from September 2016, which pre-dates the recommencement of infill activities at Oxted Quarry in October 2016.

12.22 Based on the updated assessment, it remains the conclusion that whilst no condition imposing a limit on HGV activity is justified technically, should SCC consider such a limit is necessary, a figure of 362 movements per day could be adopted based upon the findings of the report. However, given that no limit is proposed in terms of HGV movements associated with chalk exports from the site, which utilises the same type of vehicles using the same road network, the benefit of a limit on HGV traffic importing fill is questionable.

12.23 HGV traffic travelling along Chalkpit Lane has been a long-standing concern of residents in the area. A petition of 425 signatures led to the Council funding an independent review into the impact of HGV traffic, which found the HGV flows on Chalkpit Lane were lower than on other comparable routes in the area and that the activity had not led to accidents.

12.24 Whilst the geometric constraints of Chalkpit Lane were noted, it was recognised that the HGV traffic is accommodated on the route.

12.25 One alternative considered by the operator was to route traffic to the north via The Ridge, in order to avoid Chalkpit Lane. This led to a petition of 1200 signatures by residents who may be affected should that option be pursued.

12.26 The preferred option arising from the report commissioned by SCC was to undertake improvements which would not restrict HGV traffic flow, but may manage certain pinch points where congestion could potentially occur. This involved improvements at the site access, traffic calming measures, signal control at the railway bridge and widening between the bridge and Barrow Green Road to the south. It is noted that other than the traffic calming measures, all works would be beyond the main residential area on Chalkpit Lane, with the exception of four dwellings to the south of the railway. SCC subsequently installed a traffic calming feature in the form of a gateway to the south of the M25 Motorway bridge.

12.27 Whilst the report referred to traffic flow data, it did not consider how this related to the capacity of the network and therefore did not consider the likely level of potential congestion against relevant design guidance.

12.28 At the request of SCC, The Hurlstone Partnership has considered the impact of the higher traffic flows on capacity and found that the cumulative volumes remain below the design capacity of the route, which indicates even at peak levels of activity, congestion would not reach unusual or unacceptable levels, as the route retains a level of reserve capacity to accommodate flows beyond those envisaged.

12.29 SCC is also seeking to impose a requirement for condition surveys of Chalkpit Lane based upon the perception that the HGVs are causing damage to the carriageway and verges. As confirmed by the traffic surveys, other HGVs not associated with Oxted Quarry use Chalkpit Lane. It is not known whether the drivers of such vehicles operate to the similar restrictions the operator seeks to impose via the Site Rules and their enforcement, which the SCC report of 7th May 2008 confirmed appeared to be effective.

12.30 The Highway Authority already has powers to seek recompense for extraordinary wear and tear under Section 59 of the Highways Act 1980, in the event it can demonstrate this has occurred and is attributable to a particular individual or organisation. As a result, it is not considered necessary to impose a condition which duplicates these existing powers and imposes an additional burden upon the operator, who has been pro-active in engaging with the Authority in order to minimise the impact of the HGV traffic associated with the site, as far as practically possible without adversely affecting the business.

12.31 We also understand that whilst SCC installed kerbs along the northern part of the route in 2003, it has not had cause to undertake any extraordinary maintenance to date, despite the regular use of the route by HGVs travelling to / from Oxted Quarry until 2012. SCC has confirmed that no maintenance or repairs have been undertaken for at least 5 years beyond routine works such as gulley cleaning etc.

12.32 Having assessed the higher traffic volumes, it is apparent that even at 362 HGV movements per day, Oxted Quarry would not result in a severe residual impact on

Chalkpit Lane. As a result, in accordance with national policy, planning permission should not be prevented or refused on highway grounds. For parallel reasons, the conditions proposed by SCC are not necessary to reduce the impact.

12.33 A review of the cumulative impact of the traffic attracted to Oxted Quarry with other developments including Oxted Sand Pit and Palmers Wood Oilfield has been undertaken. It was found that the cumulative impact is not significant and should not influence the determination of the ROMP application.

12.34 Despite the insignificant impact associated with the proposed operations at Oxted Quarry when assessed against the extant situation, possible mitigation measures have been identified to safeguard the favourable record in terms of highway impact demonstrated in recent years.

12.35 Potential additional planning conditions to formalise the existing voluntary Site Rules are suggested, which are considered to contribute towards the favourable highway safety record and minimising the potential adverse impacts associated with ongoing operations at Oxted Quarry.

12.36 It is also proposed to regularise the relocation of the weighbridge within the site to reduce the potential for queuing to occur on Chalkpit Lane via the ROMP process.

12.37 Having considered the foregoing, it is concluded that subject to the retention of the existing planning conditions and the management protocols adopted by the operator, there is no reason to conclude the continuation of the operations at the site would have an unacceptable impact on the local highway network that would justify withholding planning permission.

12.38 In the event SCC considers it is essential that a daily limit is imposed on the number of HGV movements associated with infill activities, the review undertaken demonstrates the peak figure of 362 movements per day would be acceptable based upon national guidance. Notwithstanding this, the operator has confirmed that an annual average of 100 HGV movements per day (50 in/50 out) with a cap limit of 200 HGV movements (100 in/100 out) per day could be accommodated operationally.