Land at Hamble Airfield, Hamble-le-Rice

HIGHWAY IMPACT REVIEW

for Sand and Gravel Extraction

on behalf of Hamble Parish Council

2023/6992/HIR01

January 2023

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1 INTRODUCTION

1.1.1 RGP has been commissioned by Hamble Parish Council (HBC), the 'Client', to advise on highway and transportation matters in relation to the proposed sand and gravel extraction by Cemex UK Ltd at Hamble Airfield, Hamble-le-Rice, Eastleigh Borough, SO31 4HU ('the site'). The site is located within the boundaries of Eastleigh Borough Council (EBC) and the local highway authority is Hampshire County Council (HCC).

1.1.2 This Highway Impact Review shall consider highway matters in relation to a live application for sand and gravel extraction by Cemex UK Ltd at Hamble Airfield (Planning reference: HCC/2021/0787).

1.1.3 The development proposals consist of the proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane. The site will be operational between the hours of 0700-1700 hours Monday to Friday and 0700-1200 hours on Saturdays. The associated site layout plans are included in **Appendix A** of this report.

1.1.4 Throughout this report, 'the site' refers to the land at the aforementioned address and the 'development' refers to the proposed mineral extraction operation.

1.2 Project Background

1.2.1 HPC are concerned that the level of additional traffic proposed by the application would have an unacceptable impact on the already heavily congested Hamble Lane, which is the only means of access to the Hamble peninsula. It is understood that HCC have previously proposed a number of highway improvement works along the Hamble peninsula.

1.2.2 The site was allocated in the Hampshire Waste and Minerals Plan (October 2013), with the following development considerations:

(i) Safe and satisfactory access to ensure provision is made for vulnerable highway users and the impact on peak flows is managed.

(ii) Traffic issues including consideration of school traffic and pedestrians, particularly at Hamble Community Sports College and Hamble Primary, and management of traffic and congestion on Hamble Lane.

1.2.3 This report considers the technical assessment work submitted and summarises our overall findings and conclusions.

1.3 Scope of Assessment

1.3.1 RGP has undertaken a comprehensive review of the submitted reports in relation to application HCC/2021/0787 and the associated responses from HCC and other relevant stakeholders.

1.3.2 Initial assessment work was prepared by i-Transport in November 2021 in support of the planning application, which comprised a Transport Assessment (Document ref. BH/IN/ITB13040-004 B R) dated 30th November 2021 as part of the planning submission.

1.3.3 Further documents subject to review within this report are:

(i) Transport Assessment, November 2021, i-Transport;
(ii) HCC Highways Response, reference: PG 6/3/9/MIN (035985), March 2022;
(iii) HCC Highways Response, reference: PG 6/3/9/MIN (035985), August 2022;
(iv) Transport Assessment Addendum, November 2022, i-Transport; and
(v) Stage 1 Road Safety Audit, reference: RSA-22-158, December 2022.

1.3.4 Other submitted written material and third-party responses are also referred to throughout.

1.3.5 The remainder of this report provides an overview of any engagement held with HCC, the key transport elements of the proposals and RGP's review of concerns raised by third party representations to the planning application. The content of this report is summarised as follows:

(i) Section 2 – Site Observations;
(ii) Section 3 – Engagement with HCC Highways;
(iii) Section 4 – Highway Safety Review;
(iv) Section 5 – Impact on the Local Highway Network; and
(v) Section 6 – Summary and Conclusions.

2 SITE OBSERVATIONS

2.1.1 RGP has undertaken a site visit to appraise the existing highway arrangements, this section shall review any potential highway issues or constraints. RGP has undertaken a desk study and site visit including a comprehensive photo survey and recorded a number of measurements. RGP attended the site between 12:00 and 15:00 on Tuesday 20th December 2023 during daylight hours, the weather was fine and dry.

2.1.2 The site visit was conducted outside term time the week before Christmas so it is acknowledged that observations of traffic may not reflect neutral conditions. All observations were undertaken from the public highway.

2.1.3 The locations visited included the western perimeter of the site from the Roy Underdown Pavilion car park along the Hamble Rail Trail northwards towards Hamble Station. Furthermore, all junctions subject to junction capacity modelling were also visited namely:

(i) Location of Proposed Site Access (Hamble Lane);
(ii) Hamble Lane/Satchell Lane priority junction;
(iii) Hamble Lane/Hound Road Roundabout;
(iv) Hamble Lane/Satchell Lane Simple Priority Junction;
(v) Hamble Lane/Portsmouth Road Ghost Island Junction;
(vi) Hamble Lane/Lionheart (Jurd) Way Roundabout;
(vii) Hamble Lane/Tesco Roundabout; and
(viii) Windhover Roundabout.

2.1.4 It should be noted that the M27 Junction 8 roundabout junction was not included in the site visit due to motorway regulations. Furthermore, National Highways (NH) confirmed within their written response (reference: 93885) that they have offered no objection to the development.

2.2 On-site Observations

2.2.1 The B3397 Hamble Lane in the vicinity of the site is a two-way single carriageway road subject to a 30mph speed limit, it is noted from Table 2.2 of the Transport Assessment Addendum (TAA) that traffic along the B3397 Hamble Lane is traveling well in excess of the posted speed limit with recorded 85th% speeds of 39.6mph recorded for vehicles travelling northbound and 39.4mph for vehicles travelling southbound.

2.2.2 Visibility along the B3397 Hamble Lane is generally unimpeded in terms of alignment of the road however, it was observed that there are a number of mature trees within the grass verge along the western boundary of the site that are of a sufficient width to obscure an oncoming vehicle or cyclist.

2.2.3 Also running along the western boundary of the site (eastern side of the B3397 Hamble Lane) is the Dani King Cycle way which provides a safe cycling route that runs along Hamble Lane from near to the junction with Portsmouth Road in Bursledon to its junction with Copse Lane near to Hamble-le-Rice village.

2.2.4 The Dani King Cycleway route passes Dani's old primary school and Hamble Community Sports College and also connects with the Hamble Rail Trail in the southwestern corner of the site. Both the Dani King Cycleway and Hamble Rail Trail were observed to be well used by cyclists, pedestrians and dog walkers during the site visit.

3 ENGAGEMENT WITH HCC HIGHWAYS

3.1.1 The initial Transport Assessment (TA) report submitted by iTransport on behalf of Cemex in support of the application was considered to be incomplete, HCC highways subsequently raised a number of concerns regarding the submitted Transport Assessment (TA) report.

3.2 Initial Highways Assessment

3.2.1 Initial assessment work was prepared by i-Transport in November 2021 in support of the planning application, which comprised a Transport Assessment (Document ref. BH/IN/ITB13040-004 B R) dated 30th November 2021 as part of the planning submission referred to herein as the 'TA'.

3.3 HCC Highways Response (March 2022)

3.3.1 HCC as Local Highway Authority (LHA) responded on 23rd March 2022 (Reference: PG 6/3/9/MIN (035985) contained herein as **Appendix B** and stated:

"In 2019, the applicant engaged Hampshire County Council's (HCC) Engineering Consultancy to provide a Pre-application Design Review (PADR) of the proposed new access. Two concerns raised within the PADR do not appear to have been addressed:

1. The Designer was asked to demonstrate that other options had been considered thoroughly – both in terms of junction location and junction form. This has been briefly mentioned in the Transport Assessment (TA), but there is no evidence that this optioneering exercise was undertaken fully and this should be provided to enable to rationale of the presented access to be understood.

2. The PADR made it very clear that both HCC Arboriculture and Ecology teams had genuine concerns regarding the proposed tree loss and set out requirements for the Designer to demonstrate that their loss could not be avoided, and to fully mitigate if their loss was found to be essential."

Additional information is also required as follows:

- *Speed data is provided in a summary table only with no raw data. It is unclear where the measurements were taken, or when. The designer needs to confirm that the speeds are current (within two years) and taken in appropriate locations.*
- *Visibility to the south (left) can actually be shown to the centreline as there is a physical feature (refuge) which prevents overtaking here.*
- *Visibility to/from the tactile paving on the southern side of the proposed junction (in particular) may be limited. The designer should demonstrate that ped/cyclist visibility is achieved at all crossing points.*
- *The RSA requires updating to reflect the changes made since the PADR.*

- *There is no mention of LTN 1/20. Designs will need to prove compliance. Where possible, the cycleway should be widened to 3.0m and a suitable verge/margin provided for safety – given recorded speeds. The designer also needs to account for 'shyness' from the proposed barriers. One section is shown 2.28m wide with barrier adjacent. The effective width becomes minimal here. The crossing refuge in the bellmouth should also be a minimum of 3.0m 'deep' to cater for cyclists and the designer needs to check that the barriers do not become a problem for cyclists here too.*

- *A Walking, cycling and horse-riding assessment and review (WCHAR) has not been provided and is required.*

- *With regard to vehicle tracking, lock-to-lock times of 6s would be more appropriate than the 3s currently proposed for HGVs.*

- *Tracking – Speeds are not shown. These should be provided (it should be noted that anything lower than 10mph is not appropriate/realistic).*

- *All internal tracking uses a 14m HGV, whereas the junction is tracked with the correct 16.5m HGV, it is not clear why this is inconsistent.*

Also, it is noted that the traffic count data included within the Transport Assessment includes ATC data from 2016/2017 plus growth. A sensitivity test to compare this approach with more recent data (potentially held by HCC surveys team) should be undertaken to confirm accuracy.

3.4 HCC Highways Response (August 2022)

3.4.1 A further written response was then provided by HCC Highways on 16th August 2022 (Reference: PG 6/3/9/MIN 035985) contained herein within **Appendix C** which stated:

"The Highway Authority provided a response to this application on 23rd March 2022. Since then the additional information requested in that response has not been provided and therefore this further response is being provided now to expand on the Highway Authority's consideration of this application and to facilitate the Planning Authority's consideration of the expected Regulation 25 material.

The Highway Authority, as set out in its previous response, is concerned that the proposals are not adequately supported by the necessary transport assessment to quantify the impacts of the development proposal on the local highway network, specifically Hamble Lane north of Hound Road Roundabout, as well as the need to address the detailed comments on the site access layout.

Within this expanded response I have set out in more detail the Highway Authority's position on a number of matters for which additional information is required. If you are minded to determine this application in the absence of this information, please contact me for highway reasons for refusal."

3.4.2 Following an initial review, it is understood that the Local Highway Authority (LHA) was minded to recommend refusal for the scheme on highway grounds based on the lack of credible information submitted in relation to the likely impact of the proposed development.

3.4.3 In response to the March 2022 and August 2022 HCC responses, i-Transport then submitted a Transport Assessment Addendum dated 24th November 2022 (Refence: BH/IN/IT13040-007A) referred to herein as the 'TAA', as of the time of writing HCC have not responded to the TAA.

3.5 Walking, Cycling and Horse-Riding Assessment and Review

3.5.1 As set out above, HCC also requested a Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) be undertaken, and this is included within Appendix F of the TAA.

3.5.2 From a review RGP note that the appended WCHAR document appears to be in draft format and has been presented in 'Track Changes' view with a comment on Page 2 of Appendix F explaining 'This is to be completed on the finished report.' This remark infers the WCHAR report is not finalised, and it is therefore unclear to what extent its findings are complete.

3.5.3 Section 2.5 of the WCHAR document in Appendix F of the TAA states: '*A site visit was undertaken on 23rd June 2017 and a walking route along the site frontage and proposed access was assessed and photographed*'.

3.5.4 RGP note that the site visit was undertaken five years prior to the WCHAR being requested by HCC. Furthermore, WCHAR guidance was adopted as part of Design Manual for Roads and Bridges (DMRB) GG142 which was adopted in November 2019. RGP are unsure how i-Transport were able to conduct a WCHAR site visit two years prior to the publication of GG142.

3.5.5 Overall RGP considered the WCHAR presents a regurgitation of the content of the TA and the TAA and has not adequately explored opportunities for improvements. RGP recommend that HCC seek clarification on when the WCHAR site visit was undertaken and whether an adequate WCHAR audit with a recent site visit has been undertaken.

4 HIGHWAY SAFETY REVIEW

4.1.1 This section of the report provides consideration of recent accident data to establish whether there is a pattern of accidents locally. Furthermore, this section shall review the submitted Stage 1 Road Safety Audit and the problems raised and the adequacy/likely effectiveness of any mitigation measures proposed by the applicant to resolve them.

4.2 Highway Safety Record

4.2.1 With reference to Section 4 of the TAA an updated review of the Personal Injury Accident (PIA) record was undertaken as requested by HCC for the past five-year period December 2016 - November 2021, for a study area which covers Windhover Roundabout to the north, and to the priority junction with Kings Avenue to the south. RGP are satisfied that the PIA study area includes all relevant highway and junctions.

4.2.2 As explained in Section 4.1.3 a total of 68 collisions have been recorded in the latest-five-year period within the study area, comprising of 57 slight and 11 serious accidents.

4.2.3 Section 4.1.5 of the TAA then provides analysis of the PIAs recorded in the vicinity of the proposed development along Hamble Lane. The summary included a total of 4 collisions involving cyclist and 3 collisions involving pedestrians.

4.2.4 This pattern of PIAs involving cyclist and pedestrians is likely attributed to the high levels of vulnerable road users crossing Hamble Lane to/from local schools and traveling along the Dani King Cycleway. Furthermore, high numbers of vulnerable road users were also observed during the RGP site visit.

4.2.5 Section 4.1.7 of the TAA then claims: '*As such, the latest available accident record does not highlight any existing highway defects or safety issues that would be exacerbated by the proposed development*'.

4.2.6 This remark is completely at odds with the evidence presented in Section 4.1.5 as it is considered that the additional HGV traffic movements (circa 144 two-way HGV movements per day) crossing the Dani King Cycleway.

4.2.7 This would result in a greater number of conflicts between pedestrians, cyclists and vehicles, in particular in locations where there is limited inter-visibility between pedestrians and emerging vehicles.

4.2.8 Furthermore, it should be noted that these vulnerable road user conflicts would occur regardless of where the proposed site access is located as it would in any location have to cross the Dani King Cycleway along the key walking route for school children between Hamble-le-Rice to Hamble Station.

4.3 Review of the Stage 1 Road Safety Audit

4.3.1 A Stage 1 Road Safety Audit was requested by HCC within their March 2022 and August 2022 written responses. A Stage 1 Road Safety Audit was prepared by Fenley, reference RSA-22-158-4 (December 2022) which raised a number of problems. The Stage 1 Road Safety Audit (RSA) and supplementary drawings are contained herein in **Appendix D**.

4.4 Problem A.2

4.4.1 With reference to Problem A.2 *'Geometric parameters do not allow for even a small deviation from the swept path illustrated' the auditors recommended that the geometric parameters of the proposed site access are increased to ensure adequate space for vehicle manoeuvres'*.

4.4.2 The design audit response explained: *'Swept path analysis of the proposed access has been undertaken for a large tipper truck, as shown on drawing ITB13040-SK-013, which demonstrates that vehicles regularly anticipated to use the proposed site access junction can enter and egress the site safely'*. RGP are of the view that the manoeuvres shown are still incredibly tight and as the auditor explained leaves no margin for error.

4.4.3 The development proposals would result in 144 two-way HGV movements per day that as illustrated in the drawing would have to be conducted perfectly as any deviation from the path illustrated, would lead to HGVs encroaching onto the footway which could lead to a pedestrians/cyclist collision. RGP therefore do not considered that this matter has been adequately addressed.

4.5 Problem A.3

4.5.1 With reference to Problem A.3 *'Vehicle sideswipe / loss of control type collisions' the auditors recommended that the proposed crossing is relocated along the access road to allow adequate space for a HGV to exit the Hamble Lane carriageway before stopping to allow a pedestrian and cyclists to cross and that the proposed guardrailing is extended to the relocated crossing to prevent pedestrians and cyclists from crossing along the desire line'*.

4.5.2 The audit team have correctly identified the high numbers of vulnerable road users that travel along Hamble Lane. Furthermore, it is noted from the location plan contained on Page 6 of the RSA are a number of photos showing large numbers of school age children walking and cycling along Hamble Lane.

4.5.3 The design team's response in relation to Problem A.3 explained that *'It is understood that following the updated rules of the Highway Code, drivers / riders following traffic that is turning into a side road, should expect to wait behind a vehicle giving way to pedestrians and cyclists'*. RGP do not consider this response provides an adequate design solution to the problem raised by the audit team.

4.5.4 HGVs will traverse the Dani King Cycleway 144 times per day and as illustrated in the RSA photos and as confirmed by RGPs site visit Hamble Lane is well used by vulnerable road users so the likelihood of a collision between an HGV and a pedestrian/ cyclist would be greatly increased.

4.5.5 This assertion is further supported by the number of previous PIAs recorded along Hamble Lane involving vulnerable road users as detailed in Section 4.1.5 of the TAA. RGP therefore do not consider that this matter has been adequately addressed.

4.6 Problem A.4

4.6.1 Problem A.4 'Pedestrians and cyclists are likely to travel along the existing verge' related to the suggestion that the deterrent paving is installed within the verge besides the proposed guardrailing which has been put to the LHA for consideration. It is RGP's recommendation that deterrent paving is installed.

4.7 General Remarks

4.7.1 It is also noteworthy that the design organisations response to the problems raised are contained within the RSA document itself rather than being submitted separately as a standalone 'Designers Response'. RGP consider this to be an unusual way to conduct the road safety audit process as by merging the RSA and designers' response lessens the independence between the audit team and the design team.

4.7.2 In some cases, the audit team has considered problems raised within the RSA to be addressed and closed out, yet no input has been provided by the overseeing organisation (HCC).

4.7.3 RGP are concerned that the audit team are not sufficiently independent from the design team and that the audits responses to the design organisations response are considered to be familiar in tone which could infer that the development proposals have not been subject to a sufficiently rigorous Road Safety Audit.

4.7.4 RGP recommend that the proposed access arrangement is subject to an independent Stage 1 Road Safety Audit undertaken by the HCC Road Safety Audit team.

5 IMPACT ON THE LOCAL HIGHWAY NETWORK

5.1.1 This chapter considers the implications of development-related traffic on the operational and safety characteristics of the surrounding highway, demonstrating that the local highway and transport network can accommodate the proposed level of development.

5.2 Junction Capacity Assessments

5.2.1 It is understood from the correspondences that the scope of assessment, modelling methodologies and sources of data have been agreed with HCC. As listed in Section 5.4.1 of the TAA the junctions subject to junction capacity modelling are:

(i) Proposed Site Access;

(ii) Hamble Lane/Satchell Lane Priority Junction;

(iii) Hamble Lane/Hound Road Roundabout;

(iv) Hamble Lane/Portsmouth Road Ghost Island Junction;

(v) Hamble Lane/Lionheart (Jurd) Way Roundabout;

(vi) Hamble Lane/Tesco Roundabout;

(vii) Windhover Roundabout; and

(viii) M27 Junction 8 Roundabout.

5.2.2 As set out within Section 5.4.4 of the TAA, all of the junctions have been assessed using industry standard software, Junctions 10 with the exception of the signalised Windhover Roundabout which has been assessed using LinSig.

5.2.3 It is understood that baseline traffic data collection was undertaken on Tuesday 18TH October 2022. This date is considered to be sufficiently neutral, subject to any local events or incidents, the data is likely to be representative of typical conditions.

5.2.4 Junctions 10 reports the operational performance of a junction in terms of 'Ratio of flow to capacity' (RFC). The RFC provides a basis for judging the acceptability of junction operation, an RFC value of more than 0.85 is considered to indicate unsatisfactory performance.

5.2.5 For the signalised Windover Roundabout LinSig software has been utilised which reports results as 'Practical Reserved Capacity' (PRC). The practical reserve capacity is related to the degree of saturation of a traffic signal junction. A positive PRC indicates that a junction has spare capacity and may be able to accept more traffic. A negative PRC indicates that the junction is over capacity and is suffering from traffic congestion.

5.3 Junction Capacity Modelling Results

5.3.1 RGP has reviewed the reported results for each junction and has made the following high-level conclusions.

5.4 Proposed Site Access

5.4.1 The proposed site access junction is forecast to operate well within capacity post development, and this is not disputed.

5.5 Hamble Lane/Satchell Lane Priority Junction

5.5.1 As shown in Table 5.6 of the TAA the Hamble Lane/Satchell Lane junction is reported to operate with a maximum RFC of 0.84 during the Design Year 'With Development' scenario. Consequently, the junction is forecast as close to operational capacity as is possible.

5.6 Hamble Lane/Hound Road Roundabout

5.6.1 As shown in Table 5.7 of the TAA the Hamble Lane / Hound Road roundabout junction is reported to operate with a maximum RFC of 0.87 on the Hamble Lane North arm during the Design Year 'With Development' scenario. Therefore, the junction is forecast to operate over capacity, furthermore the maximum RFC reported for the Design Year 'Without Development' scenario is 0.83. Consequently, it is the proposed development that would cause the junction to go over capacity during the design year.

5.6.2 It would therefore be the proposed development that would cause the associated 'impact' in terms of a material detriment of the operation of the surrounding highway network.

5.6.3 Finally, it is noted that Section 5.4.12 of the TAA states that: 'the junction is expected to operate within capacity with the addition of development traffic'. This remark is completely at odds with the results presented within Table 5.7 as the junction if forecast to operate with an RFC above 0.87 during the 'With Development' scenario.

5.7 Hamble Lane/Portsmouth Road Ghost Island Junction

5.7.1 As shown in Table 5.8 of the TAA the Hamble Lane / Hound Road roundabout junction is reported to operate with a maximum RFC of 0.88 on the Portsmouth Road arm during the Design Year 'With Development' scenario therefore, the junction is forecast to operate well over capacity with queues in excess of 16 vehicles.

5.8 Hamble Lane/Lionheart (Jurd) Way Roundabout

5.8.1 As shown in Table 5.9 of the TAA the Hamble Lane / Lionheart Way roundabout junction is reported to operate with a maximum RFC of 0.97 on the Lionheart Way arm during the Design Year 'With Development' scenario therefore, the junction is forecast to operate significantly over capacity with queues in excess of 15 vehicles and delays of 119 seconds or 2 minutes.

5.8.2 Section 5.4.16 of the TAA states: 'Table 5.9 shows that the Hamble Lane arms of the junction operate within capacity in the morning and evening peak in both the 'with' and 'without' development scenarios. Very modest increases in queue length are anticipated on these arms of the junction (one vehicle)'.

5.8.3 RGP do not agree that a roundabout junction with a reported RFC of 0.97 as operating within capacity. Furthermore, Table 5.9 reports the queue on the Lionheart Way arm of the junction increases from 10 to 15 vehicles between the Design Year 'Without Development' scenario and Design Year 'With Development' scenario. RGP consider this likely to be a mistype rather than an attempt to misrepresent the junction modelling results however, it is recommended that the LHA review the junction capacity results and model output reports in detail.

5.9 Hamble Lane/Tesco Roundabout

5.9.1 Similarly, as shown in Table 5.10 of the TAA the Hamble Lane/Tesco Roundabout junction is reported to operate with a maximum RFC of 0.94 on the Hamble Lane North arm during the Design Year 'With Development' scenario therefore, the junction is forecast to operate well over capacity with queues in excess of 12 vehicles.

5.10 Windhover Roundabout

5.10.1 RGP have noted that Table 5.11 of the TAA does not report the PRC for the Windhover Signalised Roundabout. From the junction modelling output reports contained within Appendix J it is understood that the reported PRC over all lanes during the Design Year 'With Development' scenario is -14.7 during the AM peak and -14.1 in the PM peak hour.

5.10.2 Section 5.4.22 of the TAA states: '*Table 5.11 shows that the Bert Bretts Way, Hamble Lane, Bursledon Road and West End Road arms of the junction operate within capacity in the morning and evening peak in both the 'with' and 'without' development scenarios. Very modest increases in queue length are anticipated on these arms of the junction (one – two vehicles)*'.

5.10.3 RGP do not agree that a signalised roundabout junction with a reported PRC of -14.7 is operating within capacity. Furthermore, Table 5.11 reports the queue on the Providence Hill arm of the junction increases from 11 to 25 vehicles between the Design Year 'Without Development' scenario and Design Year 'With Development' scenario.

5.10.4 RGP consider this could be a mistype rather than an attempt to misrepresent the junction modelling results however, it is recommended that the LHA review the junction capacity results and model output reports in detail.

5.11 M27 Junction 8 Roundabout

5.11.1 As shown in Table 5.12 of the TAA, the M27 Junction 8 roundabout junction is reported to operate with a maximum RFC of 0.87 on the Portsmouth Road arm during the Design Year 'With Development' scenario therefore, the junction is forecast to operate well over capacity with queues in excess of 17 vehicles.

5.11.2 Despite the reported overcapacity set out in Table 5.12 it is noted however that National Highways (NH) confirmed within their written response (reference: 93885) that they have offered no objection.

5.12 Highway Impact Summary

5.12.1 Overall, the junction capacity results set out within Section 5 of the TAA demonstrate that the proposed development would result in a negative impact on local resident amenity by further exacerbating a pre-existing over capacity highway network.

5.12.2 The proposals would likely result in a cumulative impact on nearby junctions and would cross the NPPF 'severe' threshold as it is evident that Hamble Lane is already 'severely' congested.

6 SUMMARY AND CONCLUSIONS

6.1.1 RGP has been commissioned by Hamble Parish Council (HBC), the 'Client', to advise on highway and transportation matters in relation to the proposed sand and gravel extraction by Cemex UK Ltd at Hamble Airfield, Hamble-le-Rice, Eastleigh Borough, SO31 4HU ('the site'). The site is located within the boundaries of Eastleigh Borough Council (EBC) and the local highway authority is Hampshire County Council (HCC).

6.1.2 This Highway Impact Review shall consider highway matters in relation to a live application for sand and gravel extraction by Cemex UK Ltd at Hamble Airfield (Planning reference: HCC/2021/0787).

6.1.3 The development proposals consist of the proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane. The site will be operational between the hours of 0700-1700 hours Monday to Friday and 0700-1200 hours on Saturdays.

6.1.4 HBC are concerned that the level of additional traffic proposed by the application would have an unacceptable impact on the already heavily congested Hamble Lane, which is the only means of access to the Hamble peninsula.

6.2 Summary

6.2.1 A number of relevant third-party representations relating to transport and highway matters have been considered and overall, it is considered that the concerns raised by the LHA have merit and have not been fully addressed within the development proposals.

6.2.2 As mentioned in **Section 1**, the site was allocated in the Hampshire Waste and Minerals Plan (October 2013), with the following development considerations:

(i) Safe and satisfactory access to ensure provision is made for vulnerable highway users and the impact on peak flows is managed.

(ii) Traffic issues including consideration of school traffic and pedestrians, particularly at Hamble Community Sports College and Hamble Primary, and management of traffic and congestion on Hamble Lane.

6.2.3 Overall, it is considered that the proposals are not entirely acceptable from a transport and highways perspective and do not adequately address the development considerations set out within the Hampshire Waste and Minerals Plan (October 2013).

6.2.4 The following key conclusions are made:

(i) The local highway authority (HCC) have made clear their concern that the proposals are not adequately supported by the necessary transport assessment to quantify the impacts of the development proposal on the local highway network;

(ii) Analysis of personal injury accidents in proximity to the application site has identified a number of accident patterns in the vicinity of the site within the past 5 years;

(iii) The existing highway arrangements along Hamble Lane currently operate with highway safety problems with 7 collisions involving pedestrians and cyclist on Hamble Lane during the past 5-year period.

(iv) The proposed site access arrangements could lead to a detriment of highway safety by greatly increasing the number of conflicts between HGVs (144 two-way movements per day and vulnerable road users traveling along the Dani King cycleway, including school age children.

(v) The submitted Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) has been submitted in draft format with the associated site visit undertaken over 5 years ago before the publication of GG142;

(vi) The swept path analysis drawings submitted as part of the RSA demonstrates that HGVs entering and exiting the site would have to do so perfectly with no margin for error, as any deviation from the path illustrated would lead to HGVs encroaching onto the footway which could lead to a pedestrians/cyclist collision.

(vii) The submitted Stage 1 Road Safety Audit appears to have been prepared in unison with the design team and may lack appropriate scrutiny. Furthermore, a number of matters raised by the Stage 1 RSA have been considered addressed by the audit team without input from the overseeing organisation (HCC);

(viii) Almost all of the junctions subject to junction capacity modelling are forecast to operate well beyond capacity during Design Year 'With Development' scenario. Therefore, the development proposals are forecast to result in a significant material impact on the capacity of the surrounding highway network; and

(ix) It is therefore evident that the proposed development would represent a detriment to the operation of the local highway network.

6.2.5 Furthermore, RGP has identified a number of obvious errors and omissions within the submitted reports. RGP acknowledge that genuine errors do occur however, given the plenitude of errors found including some reports submitted in draft format further consideration is needed to establish whether the submitted technical assessments have been undertaken correctly in order to confirm that the development proposals are satisfactory on highway grounds.

6.3 Conclusion

6.3.1 In conclusion, the National Planning Policy Framework (July 2021) Section 111 states that *"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."* As part of this review and the technical evidence submitted in response to HCC/2021/0787, RGP are of the view that the development would likely result in a significant impact on the surrounding highway network.

6.3.2 On the basis of the shortcomings with regards to the assessment work undertaken as part of the submitted Transport Assessment and Transport Assessment Addendum identified by HCC, swept path analysis and the lack of a convincingly independent Road Safety Audit, in the context of the guidelines within para. 111 of the NPPF it is considered that the proposals would result in a residual and severe cumulative impact in terms of highway safety and the operational capacity of the surrounding transport network and therefore planning permission should be withheld on transport grounds.

RGP – Transport Planning and Infrastructure Design Consultants

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APPENDIX A

E.447400 E.447500 E.447600 E.447700 E.447800 E.447900 E.448000 E.448100 E.448200 E.448300 E.448400

N.108600 N.108500 N.108400 N.108300 N.108200 N.108100 N.108000 N.107900 N.107800 N.107700 N.107600 N.107500 N.107400 N.107300 N.107200 N.107100

PHASE 1

SILT LAGOON

PHASE 1

FRESH WATER LAGOON

SITE PLANT AREA

PHASE 6

FIELD CONVEYOR

SITE ENTRANCE

PHASE 2

PHASE 5

PHASE 3

PHASE 4

1:2000

40m 0 40m 80m 120m 160m 200m

Revisions				
	L	SCREENING BUND UPDATED	07DEC21	MJH
	O	ORIGINAL	DATE	DRAWN

ENGINEERING SERVICES
CEMEX UK Operations Limited
CEMEX House, Evreux Way,
Rugby, Warwickshire.
CV21 2DT
Telephone 01788 542111
Facsimile 01788 564455

Drawn By: MJH	Company: CEMEX UK MATERIALS LIMITED		
Date: 14 JULY 2021	Site: HAMBLE QUARRY		
Scale(s): 1:2000 @ A1	Project: AGGREGATE PROCESSING PLANT		
Chkd/Model(s): AG	Title: SITE PLAN		
Site Ref.: XXXXX	Drawing No.: TD 21030	SHT 1 OF 3	Rev: L

APPENDIX B

Hampshire County Council

Economy, Transport and Environment Department

Note

To:	Peter Bond– Strategic Planning
From:	Philippa Gordon – Highways Development Planning
Our Reference:	PG 6/3/9/MIN (035985)
Copies to:	
Date:	23rd March 2022

Subject: **CS/22/92277 Proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane at Hamble Airfield**

Thank you for consulting me on the application recently submitted in relation to Hamble Airfield, Hamble. The application is for the proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access.

Site Location
The site is a former airfield located in the north of Hamble. The site borders Hamble Lane to the west, Satchell Lane to the east and the railway line to the north.

Proposal
The site is allocated within the Hampshire Minerals and Waste Local Plan 2013. It is proposed to extract approximately 1.7million tonnes of sand and gravel at a rate of approximately 250,000 tonnes per annum. It is anticipated that this will take approximately 7 years and this will then be followed by a period of infilling and restoration. It is anticipated that the proposed development would commence in 2023, and would take up to 11 years to complete, generating HGV movements up to 2034.

The anticipated phases are:

• Traffic Phase 1: Year 1-2 – Export only;
• Traffic Phase 2: Years 3 – 7 – Export and infill; and
• Traffic Phase 3: Years 8 – 11 – Infill only.

The site will be operational between the hours of 0700-1700 hours Monday to Friday and 0700-1200 hours on Saturdays. It is stated that soil stripping and sand extraction will not commence until 0800 hours. Maintenance of plant and vehicles will be until 1900 during the week and 1800 hours on Saturdays.

Site Access
Access to the Site is proposed to be taken from a new priority access junction directly onto Hamble Lane (shown on drawing ITB13040-SK-006 Rev B). All HGVs arriving and departing the site will arrive and depart to the north (towards the M27). The access has been designed with a width of 7.3m and a kerb radius of 4.0m to the left / south of the access to prevent HGVs from turning left out of the site whilst still allowing smaller vehicles to make this manoeuvre.

In 2019, the applicant engaged Hampshire County Council's (HCC) Engineering Consultancy to provide a Pre-application Design Review (PADR) of the proposed new access. Two concerns raised within the PADR do not appear to have been addressed:

1. The Designer was asked to demonstrate that other options had been considered thoroughly – both in terms of junction location and junction form. This has been briefly mentioned in the Transport Assessment (TA), but there is no evidence that this optioneering exercise was undertaken fully and this should be provided to enable to rationale of the presented access to be understood.

2. The PADR made it very clear that both HCC Arboriculture and Ecology teams had genuine concerns regarding the proposed tree loss and set out requirements for the Designer to demonstrate that their loss could not be avoided, and to fully mitigate if their loss was found to be essential. One key element relates to CAVAT (Capital Asset Value for Amenity Trees), the value of these trees is likely to be substantial and nothing appears to have been submitted which looks to address these points. Further information can be found within HCC's TG15 Trees, landscape and Ecology and the 2019 Highways Trees Policy https://documents.hants.gov.uk/transport/TG15-Trees-Landscape-and-Ecology.pdf
https://documents.hants.gov.uk/transport/HighwaysTreePolicy.pdf

Additional information is also required as follows:

- Speed data is provided in a summary table only with no raw data. It is unclear where the measurements were taken, or when. The designer needs to confirm that the speeds are current (within two years) and taken in appropriate locations.

- Visibility to the south (left) can actually be shown to the centreline as there is a physical feature (refuge) which prevents overtaking here.

- Visibility to/from the tactile paving on the southern side of the proposed junction (in particular) may be limited. The designer should demonstrate that ped/cyclist visibility is achieved at all crossing points.

- The RSA requires updating to reflect the changes made since the PADR.

- There is no mention of LTN 1/20. Designs will need to prove compliance. Where possible, the cycleway should be widened to 3.0m and a suitable verge/margin provided for safety – given recorded speeds. The designer also needs to account for 'shyness' from the proposed barriers. One section is shown 2.28m wide with barrier adjacent. The effective width becomes minimal here. The crossing refuge in the bellmouth should also be a minimum of 3.0m 'deep' to cater for cyclists and the designer needs to check that the barriers do not become a problem for cyclists here too.

- A Walking, cycling and horse-riding assessment and review (WCHAR) has not been provided and is required.

- With regard to vehicle tracking, lock-to-lock times of 6s would be more appropriate than the 3s currently proposed for HGVs.

- Tracking – Speeds are not shown. These should be provided (it should be noted that anything lower than 10mph is not appropriate/realistic).

- All internal tracking uses a 14m HGV, whereas the junction is tracked with the correct 16.5m HGV, it is not clear why this is inconsistent.

Also, it is noted that the traffic count data included within the Transport Assessment includes ATC data from 2016/2017 plus growth. A sensitivity test to compare this approach with more recent data (potentially held by HCC surveys team) should be undertaken to confirm accuracy.

Recommendation
From a review of the information contained in the application I am unable to make a recommendation until further information has been provided as outlined above. A further response which covers the Transport Assessment and mitigation requirements will be provided once the above issues relating to the proposed access have been addressed.

In the meantime, should you wish to discuss this further please do not hesitate to contact Philippa Gordon on 0370 779 2886.

APPENDIX C

Hampshire County Council

Economy, Transport and Environment Department

Note

To:	Peter Bond– Strategic Planning
From:	Philippa Gordon – Highways Development Planning
Our Reference:	PG 6/3/9/MIN (035985)
Copies to:	
Date:	16 August 2022

Subject: **CS/22/92277 Proposed extraction of sand and gravel, with restoration to grazing land and recreation using imported inert restoration materials, the erection of associated plant and infrastructure and the creation of a new footpath and access onto Hamble Lane at Hamble Airfield**

The Highway Authority provided a response to this application on 23rd March 2022. Since then the additional information requested in that response has not been provided and therefore this further response is being provided now to expand on the Highway Authority's consideration of this application and to facilitate the Planning Authority's consideration of the expectedRegulation 25 material.

Site Access
Detailed comments on the proposed site access are contained within our previous response and there are no further comments to make at this stage.

Site Layout
Drawings ITB13040-GA-001 and GA-002 show the Swept Path Analysis of the proposed site layout for a cement mixer, 14.1m articulated vehicle and a rigid 8-wheel tipper.

Twenty car parking spaces will be provided within the site for staff and visitors with cycle parking for 10 bicycles. I am satisfied that adequate provision has been made for parking.

Highway safety

Personal Injury Accident (PIA) data has been obtained by the applicant from Hampshire Constabulary for the five-year period between 1 January 2016 to 31 December 2020.

The data covers a study area consisting of the extent of Hamble Lane, from and including Windhover Roundabout to the north to the priority junction with Kings Avenue to the south. A total of 65 accidents were recorded in the study area during the five-year period, consisting of 12 serious accidents and 53 accidents of a slight nature.

The data provided is not the latest five year period and therefore updated PIA data is required.

Highway Impact

Baseline Traffic Flows

To determine the existing baseline traffic conditions, a series of Automatic Traffic Count (ATC) surveys were undertaken on the Hamble Lane corridor between 2016 and 2017. As set out in the previous response, this data needs to be validated against more recent traffic counts to ensure the baseline is robust.

Surveys were undertaken at the following locations:

- Hamble Lane in vicinity of proposed access;
- Hamble Lane north of Hound Road;
- Hamble Lane north of A3025 Portsmouth Road; and
- Hamble Lane north of the Tesco roundabout.

Turning counts were also undertaken at the Hamble Lane / Hound Road roundabout in April 2018.

The surveys identified the following network peak hours:

- Morning Peak Hour – 08:00-09:00; and
- Evening Peak Hour – 18:00-19:00

To agree the peak hours, the raw traffic count data should be provided when it has been validated as set out above.

Trip Generation

HGVs

The proposed development is expected to generate (as a worst-case scenario) 90 two-way HGV movements per day (45 in and 45 out) in year 1 and 2 and years 8-11 and 144 two-way HGV movements (72 in and 72 out) in years 3-7 across the working day (0700-1700 hours Monday to Friday and 0700-1200 hours on Saturdays).

During the morning network Peak Hour there will be 11 two-way HGV movements in traffic phases 1 and 3 and 17 two-way HGV movements in traffic phase 2. There will not be any HGV movements during the evening network Peak Hour.

Further information is sought to evidence both the proposed HGV trip generation and the hourly profile of those trips to ensure that this reflects the operational requirements of the proposal.

Cars / Light Vehicles
There will be 7 people employed at the site, and it is assumed all will drive meaning that there will be 7 trips to the site and 7 trips from the site.

Traffic Distribution
All HGV traffic arriving at the site will travel to and from the north of the site along Hamble Lane, arriving and departing from the site via the M27 Junction 8. It has been assumed that all staff will also enter the site from the north via Hamble Lane due to the proposed configuration of the junction.

Traffic Impact
The traffic impact has been assessed for the morning and evening peak hours for the future years of 2023, 2030 and 2034 which coincide with the proposed 'year of opening' and end of traffic phases 2 and 3 respectively.

Traffic flows for the following consented developments have been included within the forecasted flows:

- Land at Berry Farm, Hamble Lane, Bursledon (Planning Ref: F/17/79863) -
- Land at Satchell Lane (Planning Ref: O/17/80319)
- Land to the south of Mallards Road (Planning Ref: O/15/76491)
- Land to the North of Cranbury Gardens (Planning Ref: O/15/76883)
- Land South of Bursledon Road (Planning Ref: O/15/77121)

Although the development at Mallards Road was dismissed at Appeal it has been retained in the assessment for robustness.

The applicant has used traffic data from similar aggregate extraction sites to calculate an indicative HGV flow profile across the day (the raw data for this is not provided).

Table 5.8 of the TA outlines that the traffic associated with the proposed development would have a maximum impact on two-way total traffic flows on the local highway network of 2.6% in the morning peak and typically less than 1% throughout the day on Hamble Lane in the vicinity of the site access in the future year of 2030 (the evening peak would only be impacted by staff journeys).

An assessment of existing HGV flows along the Hamble Lane corridor has been undertaken.

The assessment divides Hamble Lane into 4 sections and identifies that during the AM peak hour, the average number of HGVs ranges from 37 north of Hound Road to 77 north of Portsmouth Road. The PM peak averages are similar or less than the AM peak averages. The average daily HGV flows range from 363 to 831. Future year growth results in modest growth to these numbers.

As set out above, Phase 2 of the development will see the highest number of daily HGV movements generated by the proposals, reaching 144 daily HGV movements. When these flows are added to the baseline HGV flows, assumed to be from 2030 onwards in line with the phasing strategy, then the increase in HGVs across the AM Peak ranges from 21% to 45% (north of Hound Lane). The PM peak is not forecast to generate any development HGV trips. Daily HGV flows would be increase by a range of 17% to 38%. For phase 1 and 3, this percentage increases are lower reflecting the lower rates of HGV generation from the proposed use.

This will need to be confirmed against the validated baseline traffic data.

Junction Impact Assessment

Junction assessments have been undertaken for Hamble Lane / the proposed Site Access and Hamble Lane / Hound Road Roundabout using 'Junctions 10' traffic modelling software for the proposed Opening Year at 2023 and the further assessment years of 2030 and 2034.

All three years were assessed 'without development' (this includes background traffic growth and identified committed development) and 'with development' (includes background traffic growth, committed development and the development proposal). This approach is considered to be acceptable.

The remaining junctions between the site and the M27 (Hamble Lane junctions with Satchell Lane, Portsmouth Road, Jurd Way, Tesco, the Windhover Roundabout and M27 Junction 8) have not been assessed. The pre-application advice was that this was not necessary as any outputs would not reflect future traffic conditions due to the planned improvement works to Hamble Lane. However, this was when it was assumed that the works would be in place prior to the commencement of the development which is now unlikely given the planned opening year of 2023. An assessment of the impact of the development traffic on these junctions should be provided to demonstrate whether the addition of the development traffic would result in a significant impact on the capacity of these junctions.

<u>Site Access / Hamble Lane</u>

The maximum Ratio of Flow to Capacity (RFC) is 0.15 which occurs on the proposed access road arm. This results in a queue of less than one vehicle and an estimated average delay of some 28 seconds. I am satisfied that the proposed site access junction would operate within capacity during the weekday morning peak hours.

<u>Hamble Lane / Hound Road Roundabout</u>

The maximum RFC is 0.70 which occurs on the Hamble Lane north arm in the evening peak. This results in a queue of two vehicles and an estimated delay of some 8 seconds per vehicle. The proposed development is estimated to cause a maximum RFC increase of 0.03 on the Hamble Lane north arm in the morning peak period. I am satisfied that the junction will still be able to operate within capacity once the development is operational.

Recommendation

The Highway Authority, as set out in its previous response, is concerned that the proposals are not adequately supported by the necessary transport assessment to quantify the impacts of the development proposal on the local highway network, specifically Hamble Lane north of Hound Road Roundabout, as well as the need to address the detailed comments on the site access layout.

Within this expanded response I have set out in more detail the Highway Authority's position on a number of matters for which additional information is required. If you are minded to determine this application in the absence of this information, please contact me for highway reasons for refusal.

APPENDIX D

Road Safety Audit Report

Incorporating
Stage 1 Completion of Preliminary Design;
Design Organisation Response to items raised; and
Auditors View of Design Organisation Response.

Proposed Highway Access off the B3397 Hamble Lane Hamble-le-Rice

Client:
i-Transport

Client reference:
ITB13040

Fenley
2 Blaenant
Emmer Green
READING
RG4 8PH

E: office@fenley.co.uk
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Report Status 4

Job no	RSA-22-158	**Issue no**	4	**Date**	December 2022
Prepared by	JJF	**Verified by**	JCB	**Approved by**	JJF
Filename and Path	Fenley/Road Safety Audits/RSA-22/RSA-22-158-4				

1.0 PROJECT DETAILS

Report Title:	Stage 1 Road Safety Audit
Date:	December 2022
Document reference and revision:	RSA-22-158-4
Prepared by:	Fenley Road Safety Limited
On behalf of the Overseeing Organisation:	Hampshire County Council
Design Organisation:	i-Transport LLP
Project Sponsor:	CEMEX

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
0	Stage 1 Road Safety Audit drafted for Audit Team discussions	JJF			29th November 2022
1	Stage 1 Road Safety Audit finalised and issued to the Design Organisation	JJF	JCB	JJF	30th November 2022
2	Stage 1 Road Safety Audit Report format amended to incorporate a row for inclusion of a Design Organisation Response in order to maintain a concise record of items raised	JJF			30th November 2022
3	Design Organisation Response incorporated	Imogen Nicholson on behalf of i-Transport			2nd December 2022
4	Auditor's View of Design Organisation Response	JJF			2nd December 2022

Contents:

Appendices:

2.0 INTRODUCTION

2.1 This report has been prepared by Fenley Road Safety Limited and results from a Stage 1 Road Safety Audit of a proposed highway access off the B3397 Hamble Lane in Hamble-le-Rice. The proposed access is to take the form of a simple priority junction that has been designed to restrict the right in and left out movements by heavy goods vehicles (HGV's) with a 4 metre exit radius and a splitter island. The proposed access is to facilitate access a minerals extraction site on land formerly occupied by Hamble Airfield. The Audit Team have undertaken a Stage 1 Road Safety Audit of the proposals previously in July 2018.

2.2 The Audit Brief identifies that the proposals do not include any Departures from Standard, whether related to strategic decisions or otherwise.

2.3 The Road Safety Audit was undertaken during November 2022 in accordance with the Road Safety Audit Brief provided, on the 28th November 2022 by the Design Organisation, i-Transport, on behalf of the Project Sponsor, CEMEX. The Road Safety Audit comprised of a site visit as well as an examination of the documents provided which are identified in **Appendix A1**. The Audit Team were satisfied that that the Audit Brief was sufficient for the purpose of the Audit instructed.

2.4 The Road Safety Audit has been undertaken by an Audit Team whose qualifications and experience accord with the requirements of GG119 and have been approved to undertake this Road Safety Audits in Hampshire. The Audit Team consists of the following members:

Audit Team Leader
Jamie Fenning *BSc(Hons), MIHE, MCIHT, MSoRSA, Highways England RSA Certificate of Competency*
Road Safety / Highway Engineer

Audit Team Member
Jason Brown *MCIHT, MSoRSA*
Road Safety / Highway Engineer

2.5 The site has been visited twice; once as part of the previous Audit in May 2018 between the hours of 14:30 and 15:15 and again as part of this Road Safety Audit during the afternoon of Tuesday 28th November 2022 between the hours of 12:15 and 15:45. The site visit involved walking and driving around the local highway network for a total period of 75-minutes whilst observing local infrastructure and current off-peak traffic conditions. The weather during the site visits was observed overcast and during rain, the road surface was observed wet as well as dry and visibility was good. A number of pedestrians and cyclists were observed with a large number of school pupils from The Hamble School to the north and Hamble Primary School to the south. Vehicular traffic to include cars, light / heavy goods vehicles as well as passenger service vehicles were also observed, the traffic flow was moderate with a moving

northbound queue observed. Speeds were not recorded by the Audit Team but provided within the Audit Brief.

2.6 The terms of reference of this Road Safety Audit are as described in GG119. The scheme has been examined and this report compiled, only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. All comments and recommendations are referenced to the design drawings supplied with the Audit Brief and the location of road safety concerns raised have been illustrated beneath the items along with relevant photographs for clarity, where appropriate, as well as on the Location Plan attached at **Appendix A2**.

Design Organisation Response

2.7 In accordance with national standards, this Road Safety Audit was finalised and issued to the Design Organisation as per the Road Safety Audit Report Template within Appendix D of GG119, which can be provided upon request from either the Audit Team or Design Organisation. The format of the Audit Report was subsequently revised to incorporate these paragraphs under the sub-heading as well as sufficient space beneath the items and recommendation, within Section 4, for the inclusion of a Design Organisation Response. This is generally contained within a separate Design Organisation Response Report but is included within this document in order to maintain a single record of all problems, recommendations and responses for the benefit of a concise Road Safety Audit trail to be held on file for Quality Assurance purposes.

2.8 The Design Organisation Response has been prepared by:

Name:	Imogen Nicholson
Position / Organisation:	Associate, i-Transport

2.9 Any drawings or documents associated with the Design Organisation Response are listed at **Appendix A3,** if applicable.

2.10 Upon the request of the Design Organisation and following receipt of the Design Organisation Response with any associated drawings, the Road Safety Audit Team Leader has provided a further comment on the item raised. The “Auditor’s View on the Design Organisation Response” is included within a row beneath each item, for clarity.

3.0 ITEMS RAISED IN ANY PREVIOUS ROAD SAFETY AUDITS

3.1 Fenley Road Safety Limited have previously undertaken a Stage 1 Road Safety Audit of the proposals in May 2018, ref: RSA-18-026. Those proposals have been developed further through consultation with the County Highway Authority and are fully reassessed.

4.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

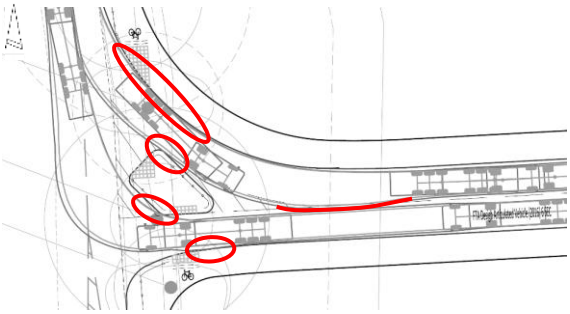
A.1	**LOCAL ALIGNMENT**
	No Road Safety Concerns regarding LOCAL ALIGNMENT have been raised at this stage
A.2	**GENERAL**
A.2.1	**PROBLEM**
Location:	Hamble Lane / Proposed access
Summary:	Geometric parameters do not allow for even a small deviation from the swept path illustrated
Acc Type:	Vehicle to pedestrian/ cyclist, loss of control, sideswipe type collisions

Hamble Lane is a single carriageway road that accommodates a shared footway cycleway to the east which is level with but segregated from the carriageway by a grass verge that is approximately 1 metre wide. The proposals include the provision of a priority access off the eastern side of Hamble Lane which is to allow access to a minerals extraction site and accommodate an uncontrolled crossing point that benefits from a refuge island. Guardrailing is to be provided on the approaches to the crossing point to guide pedestrians and cyclists to the crossing point and deter users from crossing elsewhere. The Audit Brief details that the access is expected to observe 144 HGV movements throughout the day with peak of 26 in an hour. The scheme drawings illustrate the swept path of a 16.5 metre long articulated vehicle manoeuvring into and out of the proposed access, however, the wheel tracks as well as body of the vehicle appears to brush and encroach the kerb line with no margin for error or space for even a negligible deviation from the path illustrated particularly for the inbound movement. The Audit Team have concerns that a large vehicle deviating from the path illustrated, would encroach the proposed footway which could lead to a vehicle to pedestrians/cyclist collision, strike the proposed kerbing as well as guardrailing leading to a loss of control type collision or encroach the opposing lanes into the path of oncoming vehicles leading to sideswipe type collisions.

RECOMMENDATION:

It is recommended that geometric parameters are increased to ensure adequate space

Location Plan:



DESIGN ORGANISATION RESPONSE provided by i-Transport on the 2nd December '22 following formal issue of this Stage 1 Road Safety Audit on the 30th November '22.

Swept path analysis has been undertaken for a 16.5m long articulated vehicle to demonstrate the 'worst case scenario'. It is however envisaged that the majority of HGV movements to / from the site will be undertaken by 20 tonne rigid vehicles (which have an approximate length of 10 metres) with larger articulated vehicles only observed on a rare occasion. Swept path analysis of the proposed access has been undertaken for a large tipper truck, as shown on drawing ITB13040-SK-013, which demonstrates that vehicles regularly anticipated to use the proposed site access junction can enter and egress the site safely.

AUDITOR'S VIEW OF DESIGN ORGANISATION RESPONSE dated 2nd December '22

Confirmation that the majority of vehicles that access the proposed minerals extraction site, will be 20 tonne rigid vehicles which can manoeuvre safely at the proposed junction and that articulated vehicles will not be regularly observed but can be accommodated, addresses the road safety concern at this stage.

A.3	**JUNCTIONS**
A.3.1	**PROBLEM**
Location:	Hamble Lane
Summary:	Vehicles may be required to wait for some time to manoeuvre into the access
Acc Type:	Vehicle sideswipe / loss of control type collisions

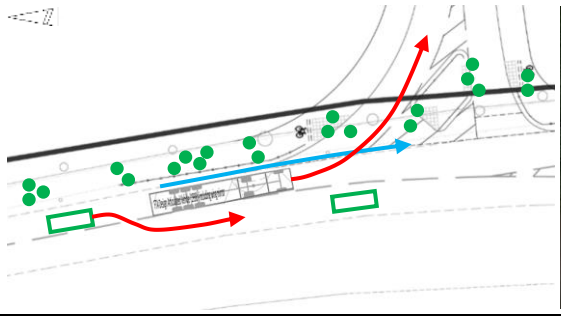
Hamble Lane is a single carriageway road that observes a traffic flow of circa 1,200 vehicles during the busiest hour and accommodates a shared footway cycleway to the east that allows access between Hamble-le-Rice and observes a footfall of circa 68 pedestrians as well as 26 cyclists during the period before and after the school day. Observations made during the first site visit undertaken, indicates that the footfall during these hours consists of groups of pupils spaced an estimated 5 to 10 metres apart that pass the site within a 5-minute period. The proposals include the provision of a priority access off the eastern side of Hamble Lane that benefits from an uncontrolled crossing and refuge island. Whilst the Audit Brief includes an assessment which details that the proposed priority junction will operate effectively and within capacity with design year traffic flows, the Audit Team is concerned that the updates to the highway code in recent years prioritise pedestrians and cyclists at priority accesses, will lead to the requirement for HGV's to wait within the Hamble Lane carriageway for some time. A stationary HGV waiting to turn left at a priority access could lead to traffic attempting to overtake as well as cyclists undertaking which could lead to vehicle sideswipe and HGV to cyclist type collisions.

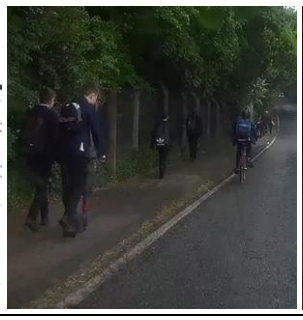
RECOMMENDATION:

It is recommended that the proposed crossing is relocated along the access road to allow adequate space for a HGV to exit the Hamble Lane carriageway before stopping to allow a pedestrian and

cyclists to cross and that the proposed guardrailing is extended to the relocated crossing to prevent pedestrians and cyclists from crossing along the desire line.

Location Plan:





DESIGN ORGANISATION RESPONSE provided by i-Transport on the 2nd December '22 following formal issue of this Stage 1 Road Safety Audit on the 30th November '22.

Considered – However, the latest version of the highway code, which states at Rule 170 and H2 that drivers should "*give way to pedestrians crossing or waiting to cross a road into which or from which you are turning. If they have started to cross they have priority, so give way*". As such, it is expected that all drivers should now give way to pedestrians and cyclists crossing the side arm of junctions (whether new or existing) and therefore, other road users (such a car drivers following behind) should expect to wait for vehicles to give way. This is not limited to the proposed access arrangement and is the case for all new and existing priority junctions with crossing points. Moreover, it is noted that the traffic flows entering the site in the periods surrounding the beginning and the end of the school day are low. Between 08:00-09:00 it is anticipated that 6-10 HGV arrivals and 4-6 HGV arrivals between 15:00 – 16:00 across the different traffic phases of the proposed development, equating to on average one HGV movement every 6-10 minutes during the morning school peak and one HGV movement every 10-15 minutes in the afternoon. Therefore, there would not be frequent occurrences when vehicles had to wait if they arrived at the same time as pedestrians or cyclists are crossing the site access.

Consideration of relocating the pedestrian and cycle crossing further within the site (circa 20m) to allow a HGV to wait off Hamble Lane for pedestrians and cyclists to cross has been given. While this would be technically possible, it is considered contrary to prevailing pedestrian and cycle design guidance which states that "*Designers should avoid layouts which make cyclists stop, slow down, or deviate unnecessarily from their desired route*". Furthermore, relocating the crossing point within the site limits pedestrian and cycle visibility splays to turning traffic and reduces the forward visibility of drivers to pedestrians and cyclists on approach to the junction.

AUDITOR'S VIEW OF DESIGN ORGANISATION RESPONSE dated 2nd December '22

It is understood that following the updated rules of the Highway Code, drivers / riders following traffic that is turning into a side road, should expect to wait behind a vehicle giving way to

pedestrians and cyclists, that the likelihood of a HGV arriving when school pupils pass is slim, and that relocating the crossing point away from the desire line is contrary to guidance on the design of cycle infrastructure detailed in LTN1/20, however, there is a risk as there is at the majority of junctions that observe HGV traffic.

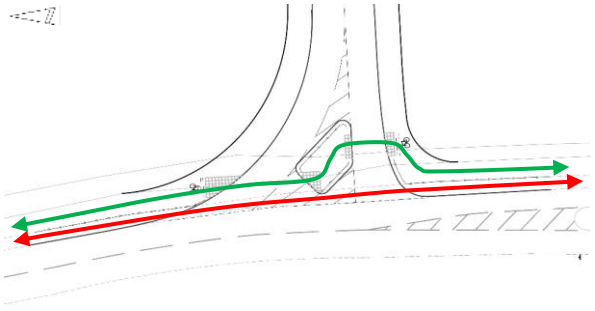
A.4	**WALKING, CYCLING AND HORSE RIDING**
A.4.1	**PROBLEM**
Location:	Hamble Lane / Proposed access
Summary:	Pedestrians and cyclists are likely to travel along the existing verge
Acc Type:	Vehicle to cyclist / pedestrian type collisions

Hamble Lane benefits from a shared footway cycleway along the eastern side of the carriageway that is offset from the carriageway by a one metre wide grass verge and allows access between The Hamble School to the north and Hamble-le-Rice to the south. As observed, the existing shared footway cycleway accommodates a high footfall particularly before and after the school day with users travelling along the grass verge as well as the footway cycleway. The proposals include the provision of a priority access off the eastern side of Hamble Lane. As part of the proposals, an uncontrolled crossing point is to be provided which benefits from a refuge island and guardrailing is to be installed to guide users towards the crossing point. It is though, however, that a number of pedestrians and cyclists will continue along the verge on the carriageway side of the guardrailing and attempt to cross the proposed junction along the edge of the Hamble Lane carriageway. Due to the seating position and eye height of a driver travelling in a Heavy Goods Vehicle, visibility in close proximity is very restricted and the Audit Team have concerns that a pedestrian or cyclist crossing in front of a Heavy Goods Vehicle will not be seen leading to a vehicle to cyclist / pedestrian collision.

RECOMMENDATION:

It is recommended that the deterrent paving is installed within the verge besides the proposed guardrailing.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by i-Transport on the 2nd December '22 following formal issue of this Stage 1 Road Safety Audit on the 30th November '22.	
Considered – There is potential to install deterrent paving to prevent the pedestrians and cyclists from using the verge and travelling on the wrong side of the pedestrian guard railing, if considered necessary by Hampshire County Council – the Local Highway Authority.	
AUDITOR'S VIEW OF DESIGN ORGANISATION RESPONSE dated 2nd December '22	
Confirmation that deterrent paving could be provided and will be further considered, addresses the road safety concern at this stage.	
A.5	**TRAFFIC SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING**
	No Road Safety Concerns regarding TRAFFIC SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING have been raised at this stage

5.0 STAGE 1 ROAD SAFETY AUDIT TEAM STATEMENT

5.1 We certify that this Road Safety Audit has been carried out in accordance with GG119.

Audit Team Leader

Name: **Jamie Fenning** *BSc (Hons), MIHE, MCIHT, MSoRSA, HE RSA Certificate of Competency*

Signed: 

Position: Road Safety / Highway Engineer
Organisation: Fenley Road Safety Limited
Date: 2nd December 2022

Audit Team Member

Name: **Jason Brown** *MCIHT, MSoRSA*

Signed: 

Position: Road Safety / Highway Engineer
Organisation: Fenley Road Safety Limited
Date: 30th November 2022

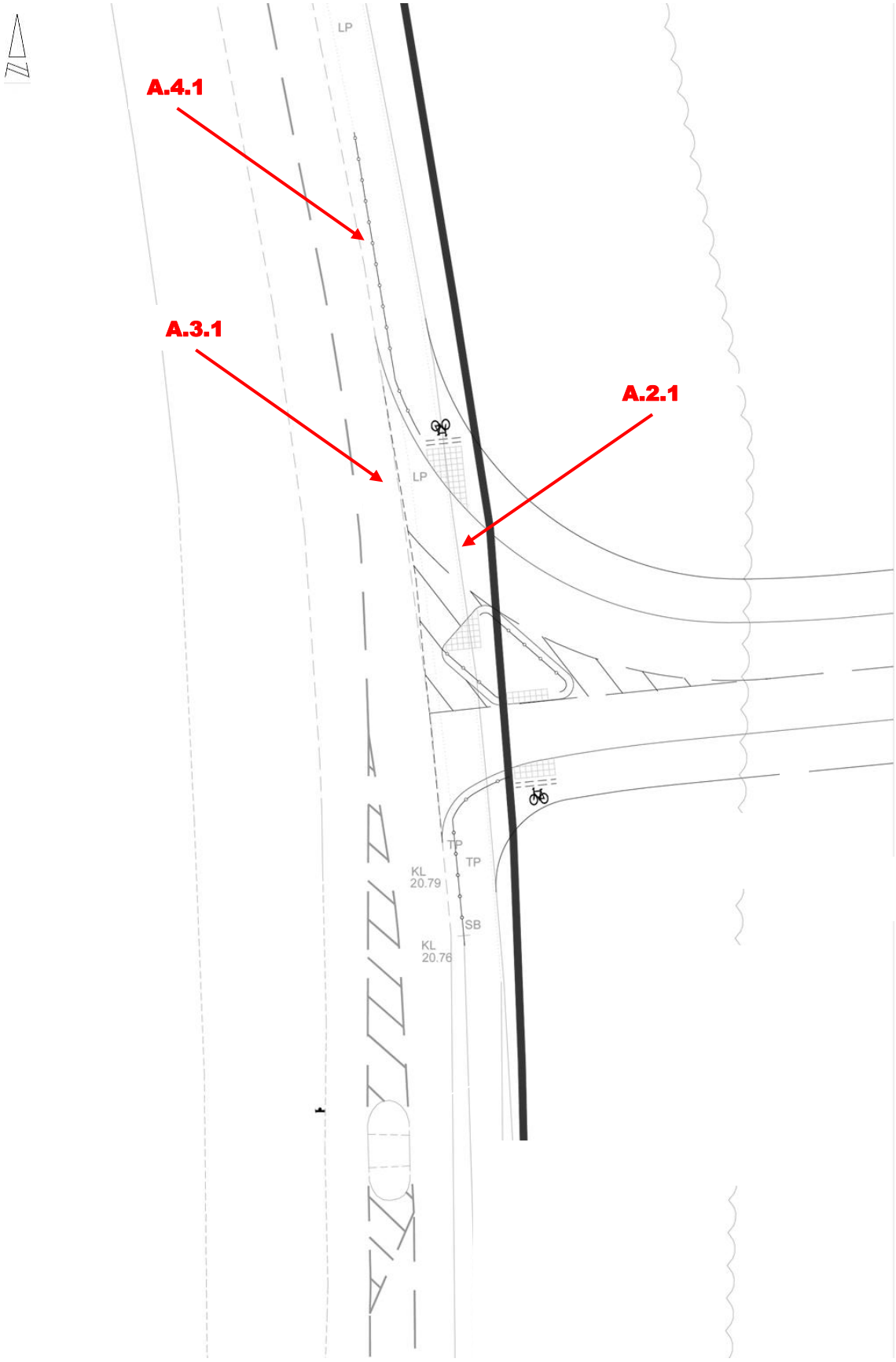
Appendix A1

Documents and Drawings provided for this Stage 1 Road Safety Audit

Audit Stage	Doc. No.	Rev	Title
Stage 1	ITB13040-RSA Brief		Stage 1 Road Safety Audit Brief
	Dwg No.	Rev	Title
	ITB13040-SK-002	D	Swept Path Analysis – 16.5m Articulated Vehicle
	ITB13040-SK-004	C	Swept Path Analysis – Fire Tender
	ITB13040-SK-005	C	Swept Path Analysis – Panel Van
	ITB13040-SK-006	F	Proposed site access
	ITB13040-SK-010	A	Proposed Site Access Pedestrian Visibility
	ITB13040-SK-011	A	Proposed Site Access Cycle Visibility

Appendix A2

Item Location Plan

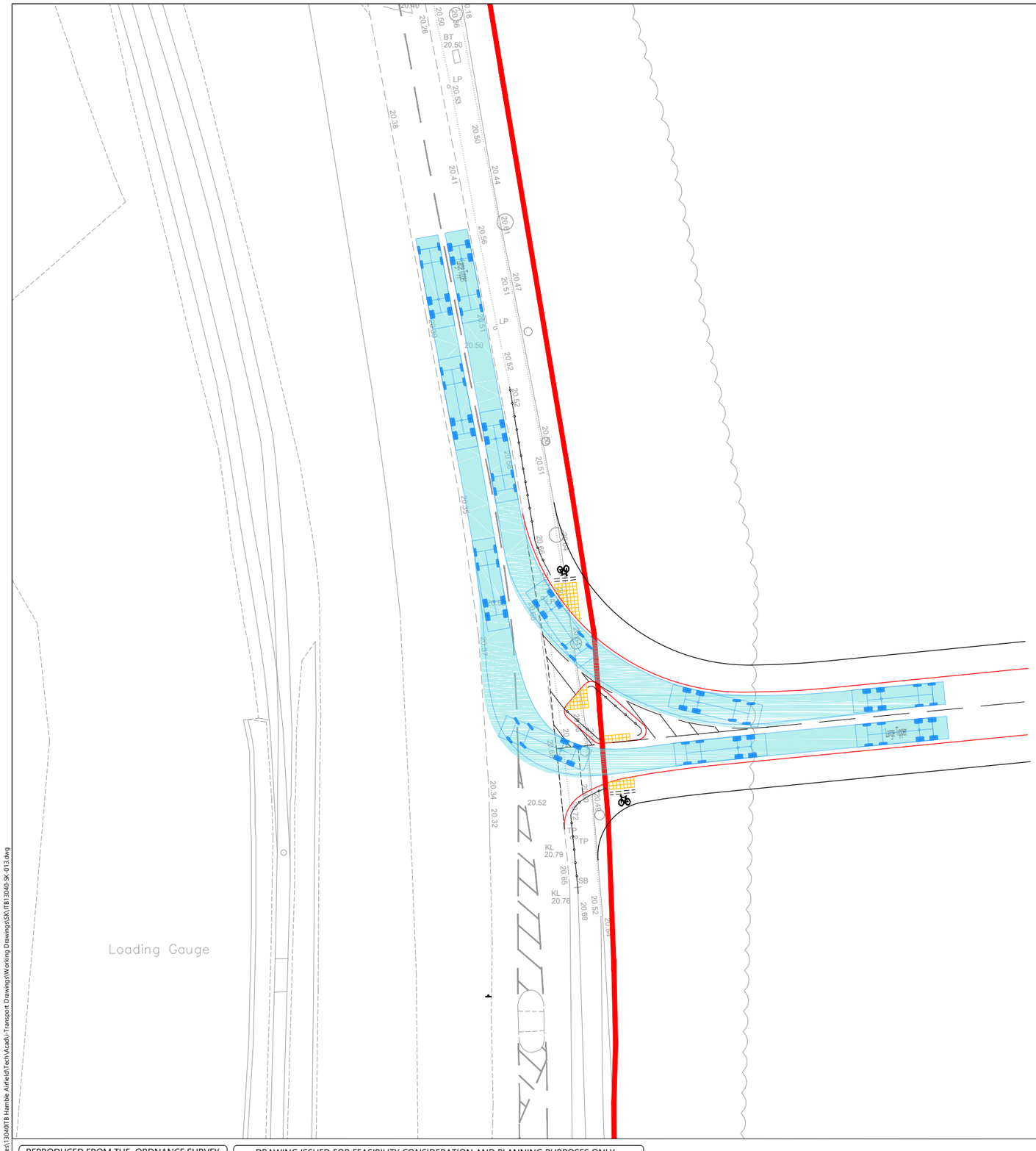

A.4.1
A.3.1
A.2.1
LP
LP
TP
TP
KL
20.79
SB
KL
20.76

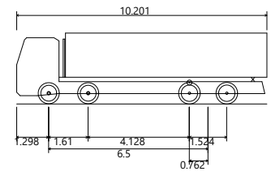
Appendix A3

Drawings associated with the Design Organisation Response

Audit Stage	Drawing No.	Rev	Title
Stage 1	ITB13040-SK-013	-	Swept Path Analysis – Panel Van


fenley





Large Tipper	
Overall Length	10.201m
Overall Width	2.500m
Overall Body Height	2.893m
Min Body Ground Clearance	0.343m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

REV	DATE	BY	DESCRIPTION	CHK	APD

STATUS:

FOR INFORMATION

i-Transport

The Square, Basing View,
Basingstoke, Hampshire, RG21 4EB

Tel: 01256 637940

www.i-transport.co.uk

TITLE:

SWEPT PATH ANALYSIS - LARGE TIPPER

PROJECT:

HAMBLE AIRFIELD

CLIENT:

CEMEX

DRAWN:	CHECKED:	APPROVED:
JD	IN	IN
PROJECT No:	**SCALE @ A3:**	**DATE:**
ITB13040	1:500	01.12.22
DRAWING No:		**REV:**
ITB13040-SK-013		-

DRAWING ISSUED FOR FEASIBILITY CONSIDERATION AND PLANNING PURPOSES ONLY. DRAWING NOT TO BE USED FOR CONSTRUCTION. I-TRANSPORT LLP ACCEPT NO RESPONSIBILITY FOR ERRORS MADE BY OTHERS IN SCALING FROM THIS DRAWING. MEASUREMENTS SHOULD BE TAKEN FROM FIGURED DIMENSIONS ONLY. CDM REQUIREMENTS CONSIDERED AT FEASIBILITY STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.

SCALE BAR @ 1:500

0 5 10 25 50

T:\Projects\13000 Series\13040TB Hamble Airfield\Tech\Acad\i-Transport Drawings\Working Drawings\SK\ITB13040-SK-013.dwg