



Tonbridge & Malling Borough Council

Highways and Transportation

Ashford Highway Depot
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Date: 1 April 2020

Application - TM/19/00014/OAEA

Location - Land North Of Lower Haysden Lane, Tonbridge, Kent

Proposal - **Outline Application: The construction of up to 125 new homes, a 2 form entry primary school, the formation of new means of access onto Lower Haysden Lane, new pedestrian and cycle links (including links to the existing playing fields and Country Park to the west), the laying out of open space, new strategic landscaping, habitat creation, drainage features and associated ground works and infrastructure.**

Matthew,

Thank you for your consultation in relation to the above planning application. I have the following comments to make with respect to highway matters :-

Introduction

This response should be read in conjunction with this authority's initial consultation response dated the 18th February 2019. I note that the applicant has submitted a revised Transport Assessment (*TA*) and Transport Technical Note (*TTN*) in response to this authority's previous comments.

Site Access

Vehicular Access

To access the development, the applicant is proposing the realignment of Lower Haysden Lane at its junction with Upper Haysden Lane, in addition to the provision of a new ghost right turn lane. These arrangements have been subject to an independent stage 1 road safety audit (*RSA*), dated 19th January 2020 which was undertaken by Safety Engineering Services Ltd. The *RSA* is also supported by a corresponding designer's response.

The *RSA* has raised 9 problems. Problems 3.1 and 3.2 of the *RSA* raises concerns in respect of the location of the tactile crossing point opposite the proposed cycle track. The auditors have highlighted the potential for conflict between pedestrians and cyclists, who may be waiting in the cross hatching associated with the proposed ghost right turn lane, and vehicular traffic. In response the applicant has stated that they disagree with the auditor's comments and that they have adjusted the position of the tactile crossing point to avoid any conflicts. Kent County Council (*KCC*) Highways disagree with the applicant's response and do not consider that the

auditor's comments have been fully addressed. Amendments are therefore required to ensure compliance with the RSA.

Problem 3.4 of the RSA also highlights the fact that an existing mature tree will be brought closer to the edge of the carriageway because of the proposed road alignment. In response to the auditor's observations the applicant has stated Kent Design Technical Appendix (*section 2.9.4*) states that trees should be set back 1 meter from the edge of the carriageway and the tree in question is set 1.4 meter back from the edge of the carriageway. However, the Kent Design Technical Appendix has been superseded by more recent versions of the Kent Design Guide. The applicant should be required to provide a response from the auditor to their designer's response. The designer's responses to the remaining problems highlighted by the road safety auditor are satisfactory and address the issues raised.

Details of the visibility sight lines from all vehicular access points and on approach to all pedestrian crossing points have also been provided by the applicant. Visibility sight lines commensurate with the road's posted speed limit (*30 miles per hour*) and the relevant technical guidance (*Table 7.1 in Manual for Streets*) have been proposed, provision of such sight lines is acceptable to this authority.

There are two examples (*right hand visibility splays associated with the pedestrian crossing point on Lower Haysden Lane and left hand visibility splay at the pedestrian crossing for the development's main spine road*) where the visibility sight lines values indicated on the keys of the revised site access drawings do not correspond to the measured values on the drawings; consequently the drawing is incorrect. At these locations measured visibility is 25 meters and 30 meters, which is consistent with a design speed of 20 miles per hour and between 20 and 25 miles per hour. A revised drawing with accurate visibility measurements is required.

In accordance with this authority's initial comments a topographical survey, which identifies the location of the footway improvement recently undertaken by KCC Highways, has been undertaken by the applicant. The proposed access arrangements have then been overlaid on the topographical survey to establish if the access arrangements can be achieved, without adversely impacting on the existing footway. Having reviewed the revised site access plans (*drawing number: 10246-HL-02 Rev A titled 'Proposed Access Arrangement sheet 1 of 2' and drawing number: 10246-HL-02 Rev A titled 'Proposed Access Arrangement sheet 2 of 2'*), it is accepted that the access arrangements proposed can be accommodated, without reducing the adjacent footway to an unacceptable width.

Revised swept path analysis for a 11.2-meter-long refuse vehicle (*drawing number: 10246-VT-01 titled 'Vehicle Tracking Refuse Vehicle'*) has been provided by the applicant. This analysis demonstrates that such a sized vehicle can egress to and from the site.

The '*exit only*' arm of the existing gyratory system provides access to one residential dwelling known as '*Hazelwood*.' It is unclear from the revised access arrangements how access to this property would be managed. In addition, it is understood that the existing gyratory layout provides a turning circle and drop off area for students of the '*Judd*' school when using their off-site outdoor sports facilities. How this arrangement would be maintained without larger vehicles, such as coaches, being required to undertake an extensive turning manoeuvre or reversing movements back onto Upper Haysden Lane is unclear. If vehicles were required to undertake the movements described, then this would not be in the interests of highway safety.

Finally, the applicant has responded to this authority's requirement for an emergency access in line with the guidance contained within the Kent Design Guide by stating that Kent Fire and Rescue Service (*KFRS*) were consulted in December 2019. Review of Tonbridge and Malling

Borough Councils (TMBC's) planning portal confirms no such response from KFRS or agreement to a single point of access. Therefore, this authority's comments in respect of this matter also remain unaddressed.

Pedestrian Access

To facilitate pedestrian access to and from the site a 3.5-meter-wide pedestrian wide refuse island will be provided west of the sites vehicular access. This is consistent with the relevant technical guidance (*Paragraph 7.39 of Design Manual for Roads and Bridges Technical Directive 42/95*) and allows for a cyclist to wait on the island, without overhanging into the adjacent carriageways. It is also noted that the island has been located in such a manner to connect with the existing shared footways on the south side of Upper Haysden Lane, and therefore provide consequential connections for pedestrians to Tonbridge town centre and its associated facilities. It is also noted that 2 meter wide footways will be provided along the development's spine road; however, in the interests of continuity and promoting sustainable transport these should be widened to 3 meters to enable the provision of a shared foot/cycleway.

In addition to providing a pedestrian refuse island it is noted that it is now proposed to close the 'exit only' arm of Lower Haysden Lane and replace it with a dedicated cycle track. The applicant aims to achieve this via the imposition of bollards at either end of the 'exit only' arm, thus preventing vehicular access.

Finally, clarification on how the footpath that links Judd's school playing fields ties in with KCC's footway improvement scheme and the footways proposed alongside the development's spine road is required. Whilst it is assumed that the footpaths existing alignment will be altered to accommodate the new alignment of the carriageway, no confirmation that a replacement footpath will be provided west of the development's access road up to the playing fields has been given by the applicant. It is important that this clarification is provided as the existing footpath provides continuous off-road provision for pedestrians wishing to access the Judd School's playing fields.

Sustainable Travel

The applicant has stated that it is highly likely that as part of Tonbridge and Malling planning permission reference 15/03918 a new footpath link between the development site and Haysden country park will be delivered. How the applicant has come to this conclusion is unclear given the fact that this permission does not obligate developer to provide any off-site improvements via a S278 agreement or S106 contributions. Consequently, this authority's comments in respect of this matter remain unaddressed.

Travel Plans

A travel plan (TP) has previously been submitted by the applicant for the residential element of the proposals to act as a 'site wide' travel plan. However, review of the revised TA confirms that a separate framework TP for the school element of the proposals has not been provided. Given that the interventions to encourage the use of sustainable modes of transport for a school are likely to be different to those required for residential development, a separate framework TP should also be provided for school element of the proposals.

Public Transport

A commitment to enhancing the existing bus stop facilities via a S106 contribution has now been made by the applicant. Whilst this proposal is welcomed wider service enhancements will

be sought as part of the sites remaining allocation, which is yet to come forward as a planning application but included in the emerging Local Plan. The applicant should therefore be required to identify a wider range of service improvements to enhance bus capacity and promote the use of sustainable transport, if the development is to be considered cumulatively with the emerging Local Plan allocations. KCC Highways are currently awaiting confirmation from colleagues within Public Transport on what this appropriate contribution may be.

Trip Generation

School trips

Revised trip generation forecasts for this element of the proposals have now been submitted. In accordance with this authority's previous comments those sites located in Scotland and Wales have been removed, with only sites in England now remaining. All the sites included within the applicant's trip generation forecasts are located in an edge of town centre, edge of town or suburban locations, and are therefore considered to have similar locational characteristics to the development proposals; thereby providing a suitable basis for comparison.

Trip Distribution

Residential trips

Census '*Journey to Work*' data has now been included for all Middle Super Output Areas (MSOA's) within the Tonbridge and Malling (TMBC) area. As a consequence, the applicant has revised their distribution methodology so that all residential trips route left to and from the site, with no trips via routing right out the site to/from the direction of Haysden Lane south or Ensfield Road. Disappointingly, the applicant has provided no clear explanation as to how they have distributed the assigned trips onto the highway network according to the identified end destination, as requested in this authority's most recent set of comments.

All trips with an end destination outside of the TMBC or within the Tunbridge Wells administrative area have been distributed via the A21 Tonbridge bypass or A26 south. Based on this authority's analysis from appropriate industry standard software (*Google Real Time Journey planner*) this is a reasonable assumption. The one exception to this is workplace destinations within the administrative area of Maidstone, where trips have been distributed between the A2014 Pembury Road and B2260 Quarry Hill Road (*Tonbridge High Street*). Again, these are considered reasonable assumptions based upon this authority's own analysis.

Finally, trips with a workplace destination within the TMBC administrative area have been distributed via the A21 Tonbridge Bypass, B2260 Quarry Hill Road (*Tonbridge High Street*), Vale Road, A2014 Pembury Road or via A26 South, dependent on the MSOA in question. Where there is a choice of available routes with similar or equal journey times the applicant has evenly split the trips, this is considered reasonable. In summary, the distribution assumptions for this element of the proposals are considered representative of likely travel patterns.

School/education trips

In response to this authority's concerns about the use of Census '*Journey to Work*' data to distribute trips associated with the primary element of the proposals, the applicant has stated that they have revised their distribution methodology. Revisions undertaken by the applicant include removing destinations not in the Tonbridge area in order to ensure that the likely local nature of these educational trips is reflected within the distribution assumptions; however, review of Appendix H contained within the applicant's revised TA directly contradicts the response in the applicant's TTN. For example, destinations such as Bexley, Bromley, West

Berkshire and Ashford are contained within the distribution analysis in Appendix H of the TA. This authority's concerns regarding the applicant's distribution for this element of the development therefore remain unaddressed.

Growth rates

Revised Temprow growth rates have been applied by the applicant with an adjustment made to account for the wider site allocation as part of TMBC's emerging local plan. In addition, one growth rate has been applied to all roads under consideration, regardless of its characteristics or classification; this is contrary to KCC Highways previous comments. As per the previous set of comments adjusting the Temprow growth factor to account for the wider allocation as part of the emerging local plan is only acceptable when considering the 'cumulative' impact of the wider site allocation. KCC Highways comments in respect of this matter remain unaddressed.

Traffic surveys

It is noted that new traffic surveys were undertaken on Wednesday 16th October 2019, which is a traffic neutral day and month in accordance with Department for Transport (*DFT*) guidance. Consequently, on the basis that the surveys were undertaken outside of school holiday periods they provide an acceptable basis for assessment purposes. Queue length surveys have also been undertaken for validation purposes.

Traffic Impact

Junction capacity assessments have been undertaken for several different scenarios. A future year assessment with a horizon year of 2031 has been undertaken in line the modelling completed in support of the emerging Local Plan. Whilst the TA includes a baseline assessment for most junctions, no baseline assessment is included for the Waterloo Road or Vale Road junctions. The following scenarios have been modelled:

-125 residential dwellings (*Option A*)

-100 units and a two-form entry primary school (*Option B*)

-480 units and a two-form entry primary school (*The full emerging Local Plan allocation*)

Site Access

Baseline (2019) and future year assessments (2031) have been undertaken by the applicant for this junction, with the future year assessments including the amended site access arrangements. The results from the applicant's baseline assessments confirm that the junction is currently operating within practical capacity, which is also reflective of the applicant's queue length surveys.

Both development options and the wider site allocation proposed as part of the emerging Local Plan have been assessed, with the junction confirmed to operate within capacity without excessive queuing or delay in all scenarios.

Brook Street junction with A26 (*Brook Street roundabout*)

A baseline line and future year assessment has been undertaken by the applicant. The applicant's baseline assessment confirms that the junction is currently operating over practical capacity in the baseline scenario, this is consistent with the results from the queue length surveys at the junction.

In the future year assessment, without either of the development options, conditions worsen and the junction exceeds theoretical capacity on all arms with significant queuing and delays forecast. Traffic conditions are further worsened with the inclusion of the development, regardless of the development option in question. Assessment of the junction with the full development allocation for the emerging local plan confirms further exacerbation of the existing traffic capacity issues.

Traffic flows associated with the Shell Petrol filling station arm of the junction have been omitted from the applicant's capacity assessment on the basis that applicant considers the flows to be '*negligible*.' KCC Highways disagree with the applicants view and require these flows to be included in any future assessment to ensure a robust assessment of existing and future operating conditions at the junction.

An additional assessment of the junction with an '*improved layout*' has been undertaken by the applicant; however, it is unclear exactly what modifications to the junction are being proposed because no scheme drawing has been provided. In addition, no independent stage 1 RSA or corresponding designer's response for the proposed improvements has been provided in accordance with this authority's standard requirements. Any proposals that require modifications to the existing highway layout require a stage 1 RSA and corresponding designer's response.

The applicant considers that the proposals put forward adequately mitigate the impact of the development and that the impact cannot therefore be considered '*severe*.' KCC Highways disagree with the applicant's assessment. For example, in the future year scenario without the development an RFC of 1.03 and maximum queue length of 51 vehicles is forecast in AM peak on the Brook Street arm; however, following the inclusion of the development an RFC of 1.13 and maximum of queue of 136 vehicles (*Option A*) and RFC of 1.21 and 210 vehicles (*Option B*) is anticipated. Similar patterns of queuing and delay are also evident on other arms of the junction.

A26 junction with A2014 Pembury Road and B2260 (*Pembury Road roundabout*)

The applicant's baseline assessment confirms that the junction is currently operating over practical capacity and is subject to significant queuing and delays on all arms of the junction. This is reflective of the applicant's queue length surveys, thereby validating the baseline assessment.

The applicant again considers the impact from the additional development to be negligible and any additional delays or increases in anticipated queueing to be minimal. Consequently, no mitigating measures have been proposed by the applicant. KCC Highways disagree with the applicant's assessment in respect of this junction also.

Review of the applicant's future year assessment confirms that the junction is anticipated to exceed its theoretical capacity in the future year as a result of background growth, with significant queuing forecast on all arms of the junction. Inclusion of the development traffic from either option A or B further exacerbates the existing capacity issues, with further worsening of conditions forecast as a result of the inclusion of the traffic from the full emerging local plan allocation.

Waterloo Road junction with B2260 (*Waterloo Road signals*)

No baseline assessment for this junction has been undertaken by the applicant, with the reason for this being unclear. KCC Highways require a baseline assessment for all junctions assessed for comparative and validation purposes.

The applicant's future year assessment indicates that the junction operates within practical capacity in all scenarios without excessive queuing or delay. This is concerning as KCC Highways Intelligence Transport System (*ITS*) also recently undertook an assessment of the junction, which identified that the junction is currently operating over practical capacity with queues and delays.

A number of technical concerns in respect of the accuracy of the applicant's Linsig model have been raised by KCC Highways ITS team, these include: the fact that the geometric parameters used to model the B2260 out of Tonbridge are incorrect in that it has been modelled as two lanes long, instead of one lane with a flare. In addition, no details of the intergreen timings used within the submitted modelling have been provided. Given the high pedestrian demand within the proximity of the junction and presence of a puffin crossing within the junction configuration, the maximum extendable clearance times requiring modelling every cycle in order to be representative of existing and future operating conditions at the junction. The incorrect cycle time has also been used by the applicant within their junction model also. Finally, the PM peak hour traffic flows used within the applicant's model is based on a total traffic flow of 1421 passenger car units (*PCU's*), whereas KCC Highways own Linsig model is based on an observed traffic flow of 1965 *PCU's*. The reason for this discrepancy is unclear and requires justification.

Review of the traffic flow diagrams contained within Appendix H of the applicant's revised TA also confirms a number of anomalies in respect of the results of the traffic surveys and traffic flows inputted into the submitted Linsig models. For example, the traffic survey identifies a combined peak hour flow of 505 *PCU's* on the B2260 (*North*) arm of the junction between 17:00 and 18:00, yet the lower observed flows recorded between 18:00 and 19:00 appear to have been used within the submitted assessments. In summary, due to the technical concerns identified it is not considered that firm conclusions can be drawn in respect of the impact at this junction on the corridor.

B2260 junction with Barden Road and Vale Road (*Vale Road roundabout*)

A baseline assessment has also not been undertaken for this junction, with only the results of the future year assessment contained within the applicant's revised TA. A baseline assessment is required for comparative and validation purposes.

The applicant's future year assessment indicates that in all scenarios, including in the future year without development, the junction operates within its practical capacity without excessive queuing or delay. These results are inconsistent with the results of the applicant's queue length surveys, which confirm significant observed queuing in both the AM and PM peak periods, most notably on the High Street and Railway Approach arms of the roundabout. For example, in the AM peak period (*08:00-09:00*) a maximum queue of 38 vehicles is recorded between 08:40 and 08:45, yet the applicant's future year model without development indicates a maximum predicted queue of 1 vehicle and degree of saturation of 49.4%. Similarly, in the PM peak period (*17:00-18:00*) a maximum observed queue of 20 vehicles was recorded, yet the applicant's future year model without development indicates a maximum predicted queue of 1 vehicle and degree of saturation of 69.1%.

An assessment of this junction was also undertaken by the consultants Mott MacDonald's as part of the evidence base in support of the emerging Local Plan. This modelling confirmed that the junction is currently operating over practical capacity in the baseline scenario (2017) with queuing and delays, with the junction predicted to exceed theoretical capacity in the future year on some arms in the AM and PM peak, even without the addition of any development traffic. A number of the outputs for the assessments described in tables 9t-9w of the TA have also been omitted from the appendix of revised TA.

In summary, the applicant's junction assessment is not considered reflective of existing, or likely future operating conditions at the junction and KCC Highways do not therefore consider that any firm conclusions can be drawn from it.

Personal Injury Collision Record (PIC)

Analysis of the PIC record for the sites immediate proximity has been previously undertaken by the applicant for the 5-year period up to September 2018. Whilst it is agreed that this analysis confirmed that no crash clusters are evident and that the proposals are unlikely to exacerbate any pre-existing highway safety concerns, given the time lag between the application being submitted and the additional information being received, more up to date data has become available (*up to 30th September 2019*). The PIC analysis should be updated to include the most recently available data.

Summary and Recommendation

The applicant has not addressed KCC Highways previous comments in respect of the site access arrangements, or adequately addressed all points raised in the stage 1 RSA within their designer's response. A **holding objection** is therefore raised in respect of this aspect of the proposals on highway safety grounds.

In addition, the applicant has not adequately confirmed how access to the property known as '*Hazelwood*' or vehicular movements associated with the Judd Schools playing fields would be maintained, without potential adverse consequences for highway safety. A further **holding objection** on highway safety grounds is also raised on this basis.

The applicant has been unable to conclusively demonstrated that suitable mitigation of impact can be achieved on the A26/B2260 corridor (*Tonbridge High Street to Brook Street*). KCC Highways are therefore of the view that the residual traffic impact on the local highway network would be 'severe,' and an objection is raised on this basis.

In the event that the Borough Council is minded to grant planning approval against the advice of the Highway Authority, KCC Highways would seek agreement with the Borough Council on the use of financial contributions towards road capacity improvements on the A26/B2260 corridor.

A Section 278 Agreement is also required to secure any proposed Highways on the Upper Haysden/Lowe Haysden Lane corridor, including any works to facilitate access to the site. Any works to be completed under a S278 agreement shall subject to agreement with KCC Highways.

The following should be secured via a Section 106 Agreement and planning conditions as appropriate:

-An appropriate sum per housing unit as a contribution towards highway capacity improvements along the A26/B2260 corridor. All details to be agreed with KCC Highways;

-Provision of works to upgrade the existing bus stop facilities outside *'The Hayesbrook School;'*

-An appropriate sum per housing unit as a contribution towards improved bus service provision, through the enhancement of the existing service or the establishment of a new service. All details to be agreed with KCC Highways;

-The development/new school shall not be brought into use until a Travel Plan, to reduce dependency on the private car, has been submitted to and approved in writing by the Local Planning Authority. The Travel Plan shall include objectives and modal-split targets, a programme of implementation and provision for monitoring, review and improvement. Thereafter, the Travel Plan shall be put into action and adhered to throughout the life of the development, or that of the Travel Plan itself, whichever is the shorter;

-Provision of a Travel Plan monitoring fee;

-Submission of a Construction Management Plan before the commencement of any development on site to include the following:

- (a) Routing of construction and delivery vehicles to / from site
- (b) Parking and turning areas for construction and delivery vehicles and site personnel
- (c) Timing of deliveries
- (d) Provision of wheel washing facilities
- (e) Temporary traffic management / signage

-Before and after construction of the development, highway condition surveys for highway access routes should be undertaken and a commitment provided to fund the repair of any damage caused by vehicles related to the development;

-Provision of construction vehicle loading/unloading and turning facilities prior to commencement of work on site and for the duration of construction;

-Provision of parking facilities for site personnel and visitors prior to commencement of work on site and for the duration of construction;

-Provision of wheel washing facilities prior to commencement of work on site and for the duration of construction;

-Provision of measures to prevent the discharge of surface water onto the highway;

-All Electric Vehicle chargers provided for homeowners in residential developments must be provided to Mode 3 standard (providing up to 7kw) and SMART (enabling Wifi connection). Approved models are shown on the Office for Low Emission Vehicles Homecharge Scheme approved chargepoint model list:
<https://www.gov.uk/government/publications/electric-vehicle-homecharge-scheme-approved-chargepoint-model-list>

-Completion and maintenance of the access shown on the submitted plans prior to the use of the site commencing;

-The proposed roads, footways, footpaths, verges, junctions, street lighting, sewers, drains, retaining walls, service routes, surface water outfall, vehicle overhang margins, embankments, visibility splays, accesses, carriageway gradients, driveway gradients, car parking and street furniture to be laid out and constructed in accordance with details to be submitted to and approved by the Local Planning Authority;

-Completion of the following works between a dwelling and the adopted highway prior to first occupation of the dwelling:

- (a) Footways and/or footpaths, with the exception of the wearing course;
- (b) Carriageways, with the exception of the wearing course but including a turning facility, highway drainage, visibility splays, street lighting, street nameplates and highway structures (if any);

-Provision and maintenance of the visibility splays shown on the submitted plans with no obstructions over 0.6 metres above carriageway level within the splays, prior to the use of the site commencing;

-Provision and maintenance of 2 metres by 2 metres pedestrian visibility splays behind the footway on both sides of the access with no obstructions over 0.6m above footway level, prior to the use of the site commencing.

INFORMATIVE: It is the responsibility of the applicant to ensure , before the development hereby approved is commenced, that all necessary highway approvals and consents where required are obtained and that the limits of highway boundary are clearly established in order to avoid any enforcement action being taken by the Highway Authority.

Across the county there are pieces of land next to private homes and gardens that do not look like roads or pavements but are actually part of the road. This is called 'highway land'. Some of this land is owned by The Kent County Council (KCC) whilst some are owned by third party owners. Irrespective of the ownership, this land may have 'highway rights' over the topsoil. Information about how to clarify the highway boundary can be found at <https://www.kent.gov.uk/roads-and-travel/what-we-look-after/highway-land/highway-boundary-enquiries>

The applicant must also ensure that the details shown on the approved plans agree in every aspect with those approved under such legislation and common law. It is therefore important for the applicant to contact KCC Highways and Transportation to progress this aspect of the works prior to commencement on site.

Yours faithfully

Tom Harris
Development Planner