

TECHNICAL NOTE

Job Name: Fort Halstead
Job No: 41290
Note No: 5503 - TN02
Date: 28th May 2020
Prepared By: F Mott
Subject: Addressing KCC Comments Dated 22nd April 2020 and 19th December 2019

- 1.1. This note addresses the pre-application comments raised by KCC in their letter dated 22nd April 2020 and consultation response from KCC dated 19th December. The note describes how the comments have been addressed in the revised planning application. Comments from the highway authorities are shown in red italics and are followed by the PBA response on behalf of the applicant.

2. Comments from KCC Consultation Response 22nd April 2020

KCC Comment: "Questions were previously raised regarding the Certificate of Lawfulness of Existing Use or Development (CLEUD), where clarification has been sought regarding its validity. It is understood that the permission runs with the land, and until the use subsequently changes lawfully. The intensity of the existing use can change, and can stop for a period of time and be restarted as long as the use has not been abandoned. While a Certificate is not a planning permission, and providing that the use is materially the same, the intensity and nature of the use can change during its lifetime. The principle of a valid CLEUD means that the site could lawfully generate additional traffic to that currently experienced or something along those lines."

- 2.1. This comment has been addressed and can be seen in para 2.3.1 within the submitted TA, confirming the lawful planning position in terms of the CLEUD.

KCC Comment: "It is a necessity that the site is accessible by all modes of transport, and further details are provided regarding sustainable access for future residents and employees. An audit of all pedestrian and cycle routes has been provided and will be assessed."

- 2.2. This comment has been addressed and can be seen in section 8.2 within the submitted TA. An audit of potential pedestrian and cycle route upgrades external to the site has been carried out and appended to the Updated TA. The on-site provisions meet current design guidance on sustainable access and design provisions and include a new proposal for a bus turning area to accommodate school services running along Star Hill Road.

DOCUMENT ISSUE RECORD

Technical Note No	Rev	Date	Prepared	Checked	Reviewed (Discipline Lead)	Approved (Project Director)
41290/5503/TN002	-	28/05/20	FM	JSL	JSL	JSL

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KCC Comment: “Para 2.3.5 outlines that the current security barriers at Star Hill are to be removed by 2022. It is understood in this regard that in theory all traffic can use the Star Hill access point in two years, but there will be less use than with the measures proposed to reduce the use of the access. If the development is permitted traffic calming will be provided on Star Hill.”

- 2.3. This comment has been addressed and details can be seen in para 4.3.4 within the submitted TA confirming the future position with respect to removal of current security measures and how this opens up the site to unrestricted traffic movements.

KCC Comment: “Para 2.4.6 - further details of how the secondary schools are schools, both in Sevenoaks and Tonbridge / Tunbridge Wells (there is currently no boys grammar school in Sevenoaks), to be accessed by local residents of the site. Bus services S34 from Polhill run to Knole Academy, and service S12 runs to Trinity School and the Weald of Kent in Sevenoaks. Contributions are likely to be required towards school transport provision.”

- 2.4. The proposals have been revised to include a new bus turning facility and stop just within the site off Star Hill Road, to allow the existing school services to safely drop off and pick up school children travelling to secondary schools. These services exist at the current time and can accommodate children from the development with limited time penalty to existing journeys. The bus pick up facility would be within a acceptable walking distance of all prospective dwellings on the site. More details about this proposal can be seen in para 2.7.24,

KCC Comment: “Site Access

The distribution of existing traffic will be skewed as the Star Hill access is restricted. Para 2.5.5 outlines that the current barriers are to be removed in 2022, whereby there will be no barriers in place and public traffic would be able to utilise the Star Hill access without restriction. Even though there will be free access via Star Hill, visibility improvements are required, with possible street lighting, and localised safety improvements.”

- 2.5. This comment has been addressed and details can be seen in para 4.5.3 – 4.5.7 within the submitted TA. The proposals include physical improvements to this junction and safety improvements on Star Hill Road.

KCC Comment: “Pedestrian & Cycle Access

Concerns have previously been raised regarding the lack of pedestrian routes to and from the site. The TA has been updated to outline that access to Knockholt Pound is via Star Hill Road, although there is no dedicated footway or lighting along the route. Access to Halstead is via Otford Lane, although this is also an unlit country lane. A cycle route to be provided to link the two site accesses (Polhill and Star Hill road) and a route towards Knockholt Pound linking to Birchwood Lane. Improvements may be required to PRow subject to consultation with KCC PRow team.”

- 2.6. This comment has been addressed and can be seen in para 8.2.2 within the submitted TA. A proposed foot cycleway is devised to run alongside PRow SR172, linking with Birchwood Lane and allowing foot and cycle onwards travel to Knockholt Pound.

KCC Comment: “We have previously requested consideration of off-carriageway cycle links between Polhill and Knockholt Station, with cycleways off road or segregated where possible. A feasibility study has been undertaken and concludes that such a solution is constrained and not possible. The existing cycle route along Old London Road is often obstructed by parked cars. This parking issue should be addressed with this application in order to benefit cyclists. While a segregated route is not possible, would consideration be given to narrowing of the carriageway to provide a wider cycleway?”

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- 2.7. This comment has been addressed and can be seen in para 4.5.19- 4.5.21 within the submitted TA. Investigation has been undertaken in respect of a potential off carriageway (i.e. on verge) route and also by utilising existing carriageway space, however this finds that there are significant land and highway constraints along the route so as to render any proposals unfeasible and unviable. Notwithstanding this finding, it is considered that the proposed shuttle bus service would be more effective and popular than cycling, and able to service all connections with rail services at Knockholt station with minimal interchange delay.

KCC Comment: "Additional cycle parking is required at Knockholt railway station, together with additional parking restrictions to keep the on-road cycle route clear."

- 2.8. This comment has been addressed and can be seen in para 2.7.16 and 8.2.5 within the submitted TA.

KCC Comment: "Public Transport Network

Para 2.7.6 outlines the small station car park at Knockholt station is supplemented by on-street parking on London Road which has a daily charge of £3.50. It is considered that the parking will need to be more expensive to deter people from parking all day."

- 2.9. This comment has been addressed and can be seen in para 2.7.22 within the submitted TA. Parking at this location is managed by Sevenoaks District Council, therefore it is proposed that SDC are asked to address this point going forward through their regular parking pricing updates.

KCC Comment: "The 2015 survey data of parking usage at Knockholt station was updated in February 2020. The survey extended along London Road at A21 to Shacklands roundabout, measuring the length of area suitable for parking and identifies that the majority of parking at the station and London Road is occupied. The proposal seeks to provide sustainable modes of transport to remove any need to additional car parking. As previously noted, the cost of bus services to the stations should be significantly lower than the parking fees. The applicant should put forward proposals which will resolve the parking issues including the pricing and the use of the cycle route for parking following consultation with SDC Parking Services."

- 2.10. This comment has been addressed and can be seen in para 2.7.22 and 8.2.5 within the submitted TA, referencing the appended report on the proposed shuttle bus service and the report on feasibility of an off road cycle route to Knockholt station.

KCC Comment: "Limited cycle parking is available at Knockholt railway station (which is considered the most attractive in terms of route and distance to the site), whereby further details of additional cycle parking is required as part of the proposal."

- 2.11. This comment has been addressed and can be seen in para 2.7.16 within the submitted TA, where contributions to cycle parking are discussed.

KCC Comment: "Details of the patronage and usage of the DSTL Go Coach shuttle bus have been outlined, whereby approximately 60 staff utilise the service per day. As noted above, the price of the bus would need to be cheaper than parking at the station. However, it is noted that a price of £4.00 per day would be charged for a return trip to Knockholt station. Parking prices are set by Sevenoaks District Council, whereby the parking charges may be increased. Consultation should be made with SDC Parking Manager regarding this."

- 2.12. This comment has been addressed and can be seen in para 2.7.22 within the submitted TA, confirming that SDC will be made aware of KCC's stance on price differentials between shuttle bus services and parking.

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KCC Comment: “Bus route 431 (number 3 service as of January 2020) operates between Orpington and Sevenoaks via Star Hill Road and Knockholt railway station. This service provides 3-4 services per day, which is clearly not adequate to serve the site. A community bus is proposed, with 3 minibuses running between the site and the train station, schools, and local facilities. The service is expected to reach viability at the end of the 10 year build period.”

- 2.13. This comment has been addressed and can be seen in para 2.7.23 within the submitted TA and the note within Appendix M. A point of clarification is made that there are two minibuses proposed to operate from the site on full occupation of the development, as set out in detail in the note. This note finds that projected bus demand can be accommodated by the minibus service and should not therefore require further contributions to the 3 service. It is the case that should the applicant be required to also contribute to the 3 service that demand would not be adequate to ensure the long term viability of the shuttle bus service, which would not meet the aim of the applicant support. It is considered that the request for a further contribution to the 3 is not supported by any evidence and would not meet the tests on planning obligations set out in the NPPG.

KCC Comment: “Various school services (S31, S32, S33, T3 and TW6 operate return trips on school days only. These services go past the Star Hill Road access , where there is a bus stop, but there are currently no pedestrian waiting or crossing facilities. Clarification is required how far these stops are from the entrance. A drop off and pick up bus facility has been proposed within the site (Star Hill Road access) incorporating a waiting and turning facility at the eyot close to the access point. It is agreed that this would be beneficial and enable buses to enter and leave the site with ease. However, vehicles approaching an eyot would not expect u-turning vehicles. Therefore. It is considered that a roundabout would be a more suitable option, without taking up too much additional space and acting as an additional gateway feature. A Road Safety Audit will be required.”

- 2.14. This comment has been addressed and can be seen in para 2.7.24 within the submitted TA. A roundabout option is now proposed to allow bus turning.

KCC Comment: “Local Highway Network

Traffic ‘hotspots’ in the area have been highlighted by the Sevenoaks District Strategy for Transport 2010-2026 as A224 Dunton Green to Riverhead, A224/A25 Riverhead roundabouts and A25 Bat and Ball traffic lights. The trip assumptions for each of these hotspots has been assessed between 26 – 42 trips during the AM and PM peaks. Additionally a review of the traffic generated through Otford is required. It is likely that S106 contributions will be required towards off- site highway improvements at these locations.”

- 2.15. This comment has been addressed and can be seen in chapter 6.7 within the submitted TA, including figures on potential traffic flows through these communities.

KCC Comment: “Para 5.6.14 outlines that there is less traffic compared to the CLEUD and up to 60 additional movements in the peaks. Maybe a contribution could be made through S106 to traffic management measures.”

- 2.16. The development as a whole is not predicted to produce more trips than the CLEUD, however there are more trips distributed to the North access than compared to the CLEUD amounting to approximately 60 additional movements. This level of trips has been considered in traffic capacity testing within the TA.

KCC Comment: “While traffic surveys from 2017 and 2018 have been utilised, additional updated surveys (March 2020) were undertaken for the M25 Junction 4 and the M25/A25/A21 junction.”

- 2.17. This comment is noted and has been addressed and can be seen in para 2.8.6 and table 2-4 within the submitted TA.

KCC Comment: “Personal Injury Collisions

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Personal Injury Collisions data has been obtained for the 5 year period up to May 2019, which is accepted.

2.18. This comment is accepted and data can be found in para 2.9.2 – 2.9.7 within the submitted TA.

KCC Comment: “As previously noted, crashes involving cyclists at Star Hill Road / Morants Court roundabout need to be addressed with possible safety improvements proposed.”

2.19. This comment has been addressed and can be seen in para 2.9.3 within the submitted TA. As outlined within the TA there were 3 accidents at this roundabout of which 2 involved cyclists. Of the 2 accidents only 1 involved a car, hitting the cyclist as they entered the roundabout. The other accident involving a cyclist was due to the cyclist hitting the kerb.

KCC Comment: “Shacklands roundabout has a high incident of cyclist crashes. Measures should be put forward to improve cycle safety at these junctions.”

2.20. This comment has been addressed and can be seen in para 2.9.3 within the submitted TA. Looking at the detailed descriptions of crashes involving cyclists, and as is covered in more detail in the cycle route feasibility note appended to the TA, there is a high usage of the local highway network in the vicinity of the site for amateur sports road cycling and it would appear that this is a factor in a number of the crashes highlighted on the local network. Amateur sports cyclists only cycle on the carriageway and would not cycle on a cycleway off carriageway, therefore any proposals would be unlikely to benefit the safety of this group of users and would not be required to service the development. Being a pre-existing situation not related to the development, and scheme of warning signage could be promoted by the Council as part of their ongoing network management role.

KCC Comment: “Star Hill Road bend near Birchwood Lane / Old London Road – four accidents have been recorded whereby three are speed related. Safety enhancements should be considered.”

2.21. This comment has addressed and can be seen in para 2.9.3 within the submitted TA. The proposals for a reduced speed limit and other measures on Star Hill Road are carried over from the previous planning application. Notwithstanding this, the assessment of traffic effects from the CLEUD confirms that the development should not give rise to a significant increase compared to this baseline scenario and when considering that the security measures on the Star Hill access are due to be removed in 2022. It is therefore considered unlikely that the development would give rise to a significant worsening of safety on this part of the network.

KCC Comment: “Policy Review

Kent Design Guide, Sevenoaks District Cycling Strategy, Manual for Streets 2 documents have been included which is accepted.”

2.22. This comment is accepted and updated policies can be found in Chapter 3 of the submitted TA.

KCC Comment: “Development Proposals

As a bus route through the site, Crow Drive will be 6.75 metres in width, in line with Kent Design Guide requirements. This is accepted.

While the quantum of development proposed requires a second access, we have maintained the need to restrict the use of the Star Hill Road access.

These measures include:

Locating the commercial development away from Star Hill Road access;

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The design route to Star Hill access is intentionally convoluted, thus increasing journey times, this includes traffic calming road deviations;

Part of Crow Drive / Road is proposed to be pedestrianised.”

2.23. This comment has been addressed and can be seen in para 4.3.3 within the submitted TA.

KCC Comment: “A number of traffic calming features have been discussed and accepted throughout the pre-application process. However, the functionality of ‘squareabout’ features have been questioned on numerous occasions. These features have been further modified to provide a ‘square’ junction. Examples have previously been provided at Iwade, near Sittingbourne, which are accepted as suitable feature.”

2.24. This comment has been addressed and can be seen in para 4.3.4 within the submitted TA, providing further information and justification on the access element of the proposals.

KCC Comment: “As previously noted, the visibility splays are considered appropriate for 37mph roads. The TA outlines that speed surveys do not go out of date, and remain fit for purpose. Part of the proposed works at Star Hill Road include a TRO to change the speed limit to 40mph, whereby the question remains as to whether visibility splays should reflect this change in speed limit.”

2.25. This comment has been addressed and can be seen in para 4.5.5 within the submitted TA. As set out in scheme drawings appended to the TA the recorded traffic speeds have been used to calculate appropriate visibility splays in accordance with the formula set out in Manual for Streets and IGN2. The proposed visibility splays are therefore considered to meet current design guidance.

KCC Comment: “The visibility splays are adequate for the speed of traffic (subject to the trimming of the vegetation).

Improvements to the visibility splays include:

New warning signs at the approaches to the junction, the addition of anti-skid surfacing, tapers on the junction corner radii, an enlarged splitter island, cutting back of vegetation to improve visibility.

White lining and signs on the bend near the cottages on the south side of Star Hill road to warn of the bend have previously been requested and should be included as measures.

Improvements to the existing bridleway between Polhill and Twitton have been considered. However, due to ownership constraints, it is considered improvements to the lighting would be most appropriate through S106 contributions.”

2.26. This comment has been addressed and can be seen in para 4.5.6 within the submitted TA.

KCC Comment: “Trip Generation & Distribution

Further to consultation responses, further consideration has been given to the trip assignment, especially Crow Drive. The updated trips rates are agreed.”

2.27. This comment is accepted.

KCC Comment: “Para 5.3.2 has been updated to note that the modal split data is based on census data whereby it is considered that those travelling to London (by train) would do so prior to the 0800-0900 peak data period, and later than the PM peak period.”

2.28. This comment is accepted.

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KCC Comment: "The existing permitted CLEUD generates higher traffic numbers than the proposed development. The AM departure, and PM arrival trips are higher for the proposed development, although the overall two-way flows are significantly lower. It should be noted that the arrivals / departures profile for the CLEUD assessment is reversed from the residential generation."

2.29. This comment has been addressed and can be seen in para 5.6.24 within the submitted TA.

KCC Comment: "Para 5.6.8 outlines that a 1.5 minute time penalty has been given to the routing for Star Hill Road due to the proposed road alignment and traffic calming features. This reduces the number of trips using this access by approximately half., which is considered appropriate. However, I question the logic of assuming that fewer people will utilise the Star Hill Road access due to it being a priority junction as opposed to a roundabout."

2.30. There was a typo within the TA and this should be a 1.25 minute penalty. Para 5.6.9 and table 5-8 in the updated TA demonstrates the traffic flows resulting from different time penalties, which should satisfy this query.

KCC Comment: "Table 5-12 and 5-13 show a comparison of key links (two way movements) between the CLEUD and the proposed development. The majority of junctions / links see a reduction in trips, while in the PM peak there is a modest increase. As the CLEUD is valid and the current use, it is acknowledged that the site has the potential to generate a comparable number of vehicle trips to the proposed development. The CLEUD would generate a greater number of trips at Star Hill Road, compared to the proposed development. This is in light of the removal of security measures in 2022 and the route being devoid of traffic calming features."

2.31. This observation has been addressed and can be seen in para 5.6.22 within the submitted TA.

KCC Comment: "Star Hill trip generation sees 135 trips during the AM peak and 252 during the PM peak. This represents a decrease from the previously outlined AM peak (145) and slight increase in the PM peak (175). This represents a more modest increase which is deemed more appropriate."

2.32. This comment is accepted.

KCC Comment: "Para 5.7.3 outlines that the potential level of trip generation from the existing site could match and exceed the potential trip generation from the proposed development. While this is accepted, the proportion of traffic utilising the Star Hill Road access needs to be demonstrated to be reduced."

2.33. This comment has been addressed within Para 5.6.9 and Table 5-8 demonstrating the flows for different time penalties and that these are reduced as penalties increase.

KCC Comment: "A Delivery Management Plan was previously suggested, and this is maintained to provide restrictions of vehicle routing associated with the commercial element."

2.34. This comment has been addressed and can be seen in para 5.7.5 within the submitted TA.

KCC Comment: "Highway Impact Assessment

The CLEUD and the proposed development have been considered as alternative baselines, which was agreed during a meeting in February 2020."

2.35. This is accepted.

KCC Comment: "As a result of consultation with Highways England, M25 Junction 4 and M25/A25/21 junction have been included in the assessment."

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2.36. This is accepted.

KCC Comment: "Previous percentage impact figures suggested that the impact on Star Hill Road may not be acceptable. Calculations have been revised, addressing the traffic calming measures proposed, whereby the percentage impact is 15.3%. It is still evident that the greatest percentage increase takes place at Star Hill Road."

2.37. This comment has been addressed and can be seen in para 6.3.5 within the submitted TA. Whilst this percentage increase is seen as 15.3%, it is set against a low baseline traffic flow on Star Hill Road, which would evidently make even a modest traffic increase seem larger in percentage terms. In reality the increase in traffic is merely two to three vehicle per minute in the peaks, which is not considered to be a large increase and should not give rise to adverse impacts in terms of traffic capacity, amenity or road safety. The consequence of a 15.3% increase in traffic on this route is not therefore considered severe.

KCC Comment: "Local Junction Assessments

Assessments have been completed for key junctions for the following scenarios

- 2018 Base
- 2035 future base
- 2035 Alternative Base (CLEUD)
- 2035 base + development

Junctions 9 has been used to model the junctions with ARCADY used for roundabouts and PICADY for priority junctions. Transyt has been used to model the M25/A25/A21 interchange. The modelling outputs will be checked at the planning application stage but a review of the reported results is as follows:

Junctions expected to operate within capacity in 2035 with development include

- Shacklands Roundabout
- A224 Polhill/Otford Lane
- A224 Polhill/A224 Otford Lane/Crow Drive/A224 London road – agreed roundabout scheme
- Morants Court Road Roundabout
- Star Hill Road/site access

Junctions expected to operate over capacity in 2035 with development include:

Hewitts Roundabout The junction is expected to operate over capacity however the 2035 with development scenario is no worse than the 2035 future base scenario. However there appears to be an error in Table 6-3 where Arm F (M25) PM Future Year - Arcady results of 3.16 RFC . Please could this be checked."

2.38. This comment has been accepted and the error changed within Table 6-3.

KCC Comment: "A224 Polhill/Pilgrims Way west link road. The junction is expected to operate over capacity in the AM peak however the 2035 with development scenario is no worse than the 2035 future base scenario."

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2.39. This comment is accepted.

KCC Comment: "M25 Jn 4 The results show that capacity queues and delays will be worse in the 2035 with development scenario when compared to the 2035 base scenario. As this is a motorway junction advice should be sought from Highways England."

2.40. Highways England should be consulted by SDC and asked to comment.

KCC Comment: "Hewitts roundabout – Both A224 and Court Road operate over maximum capacity during the PM peak. the secondary access relieving Hewitts roundabout has been outlined as providing routing choices of people wanting to access the M25 are able to utilise the A25/A21/M25 junction to the south of the site."

2.41. This observation is acknowledged and is dealt with in the capacity testing section of the TA.

KCC Comment: "M25 Junction 4 – observed flows indicate that both AM and PM peaks see the junction operate above desired capacity. Future with and without development scenarios see the junction operate above maximum capacity."

2.42. This observation is acknowledged and is dealt with in the capacity testing section of the TA.

KCC Comment: "M25/A25/A21 interchange. The Westerham Road arm of the junction is expected to be over capacity in the future year and the addition of the development traffic worsens the situation. Mitigation measures should be considered. Para 6.4.41 shows errors relating to TRANSYT which need to be clarified."

2.43. It is believed that the errors mentioned by KCC are to do with table references, and these have been updated to reference the correct tables. If there is an error believed by KCC to do with the TRANSYT results they should be clear as to what errors they see.

KCC Comment: "2020 observed flows operate within capacity. However, future scenarios with and without development for link 17 (A25/A21/Westerham Road) right turn and straight manoeuvre exceeds maximum capacity."

2.44. This comment has been addressed and can be seen in para 6.4.51 within the submitted TA.

KCC Comment: "Construction Impacts

A Construction Management Plan has been suggested by way of a Condition, which I accepted. As previously noted, this should encompass each phase of demolition and construction, and be submitted and approved prior to any works commencing. This should include details such as routing of vehicles, employee parking, delivery vehicle unloading and turning, wheel washing, and any requirements for traffic management.

No construction traffic should be permitted to use the Star Hill Road access."

2.45. This comment has been addressed and can be seen in section 7 within the submitted TA.

KCC Comment: "Sustainable Transport Strategy

Consideration has been requested of feasibility of a new off road cycle route between Polhill & Knockholt station. A separate feasibility study has been undertaken outlining that the cycle way between the site and Knockholt station is constrained. The applicant has agreed to provide an advisory cycle lane on the A224 to link Otford Lane and the existing advisory cycle lane. The route along Old London Road is via an advisory cycle lane. While an off-road cycle route is noted as not being feasible, additional signage has been suggested."

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- 2.46. This comment has been addressed and can be seen in para 8.2.8 within the submitted TA and the appended note.

KCC Comment: "To encourage sustainable travel cycle parking facilities at the site are suggested. This should be in the form of adequate facilities at every home as well as a dedicated cycle hub in the village centre, incorporating cycle hire scheme. The initiative provider Enterprise has been suggested."

- 2.47. This comment has been addressed and can be seen in para 8.2.9 within the submitted TA.

KCC Comment: "The number 3 (formerly 431) bus service is proposed to be diverted through the site, with an additional community bus servicing the site and surrounding facilities. The frequency of the number 3 service requires clarification. The proposed community bus is proposed to operate by a 'demand responsive service' whereby further details of the operation of such a service are required as there is uncertainty as to how this demand will be gauged and met."

- 2.48. This comment is accepted and has been further elaborated upon in the TA and appended note.

KCC Comment: "It is anticipated that a single minibus service will operate during the early stages of occupation / build. As suggested, the service will need to develop and change as the need arises. A Management Plan is suggested prior to commencement of the service."

- 2.49. This comment has been addressed and can be seen in para 8.3.8 within the submitted TA.

KCC Comment: "Clarity is required as to how young primary age children are anticipated to travel to the school. Unless a dedicated school bus is provided, it is considered unlikely that parents would send young children on the bus alone. Alternative school services currently route via Star Hill. However, these services are for secondary school aged children, and not primary school as proposed on site."

- 2.50. This comment has been addressed and can be seen in para 8.3.6 within the submitted TA. The shuttle bus service, once it finishes rail station duties earlier in the morning, can then carry out primary school duties, as demand dictates. The benefit of the flexibility in this service is that it can be adjusted regularly to meet the greatest demand from the development itself, and is not rigidly fixed to a timetable dictated by external factors.

KCC Comment: "A sustainable (Enterprise) hub is suggested to provide car clubs, car and van hire, cycle hire and app based mobility. All of these suggestions are welcomed and should be explored in full details provided in the Travel Plan."

- 2.51. This comment is accepted and can be found in the accompanying Travel Plan. Further details on the scheme will be fixed on implementation of the Full Travel Plan prior to first occupation.

KCC Comment: "Comments on Technical Note 5503 TN01 re A224/Old London Road Cycleway Feasibility"

The investigations reported in the Technical Note indicate that the provision of an off road cycleway would not be feasible due to constraints including trees,, land availability, gradient issues, ditches and utilities. Furthermore, the use of 'Orca' lane separation would not be suitable on the A224 due to speeds in excess of 20mph."

- 2.52. This comment is accepted.

KCC Comment: "The permitted development at Fort Halstead is required to provide advisory cycle lanes on the A224 between Shacklands roundabout and the Polhill/Crow Drive site access. Whilst I concur that the provision of an off-road route would not be feasible, I would recommend that improvements are made for cyclists at the Shacklands Roundabout."

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- 2.53. This comment has been addressed and can be seen in para 2.9.7 within the submitted TA. It is noted that the majority of cyclist safety incidents are likely to result from amateur sports cycling activities on London Road and Old London Road, where such road users are unlikely to utilise off road routes around Shacklands Roundabout.

KCC Comment: "Public Transport Strategy

Diversion of Service 3 (Go Coach) (previously the 431 service) - Sevenoaks – Orpington via Dunton Green, Knockholt Pound and Pratts Bottom. The diversion into the site and the enhancement of the service is agreed subject to Public Transport team review."

- 2.54. This is accepted.

KCC Comment: "Community Minibus Service

The strategy proposed the use of two minibuses operating Monday to Friday with fixed timetables for commuters at peak times and flexi services on demand at other times. The buses would link with Knockholt Station and Orpington Station for rail connections. In addition, links would be available to Sevenoaks and Orpington and local areas."

- 2.55. This is accepted.

KCC Comment: "Viability has been considered and consultation with Go Coach who currently operate a community minibus service in the district. The total cost of such a service is expected to be £175k pa for the 1st 2 years rising to £255k pa for subsequent years. Funding support of £875k would be required over the 1st 8 years and 17k pa on each subsequent year."

- 2.56. This is accepted and will be put forward to the S106 agreement.

KCC Comment: "The public transport strategy will be passed to KCC Public Transport Team for review and comment."

- 2.57. This comment is acknowledged.

3. Comments from KCC Consultation Response 19th December 2019

KCC Comment: "Transport Assessment

The site benefits from an existing permission for 450 homes and 27,000 sqm B1 / B2 employment uses + hotel (SE/15/00628). The current application is for additional 300 homes + 1FE Primary School + QinetiQ to remain but excluding hotel."

- 3.1. This is outlined within para 1.1.2 of the TA.

KCC Comment: "Introduction

Para 1.2.6 suggests 82,168 sqm employment space under existing Certificate of Lawful Use (CLEUD). Future employment levels up to 1,322 FTE. This extant permission requires clarification from SDC Planners regarding its validity (see also Technical Note re Assessment of Traffic on Nearby Villages also refers)"

- 3.2. The certificate for the CLEUD has been provided to SDC Planners to validate and it was agreed that the CLEUD is a valid argument.

KCC Comment: "Para 1.4.3 makes an unsound statement. Public Transport, Cycling and Pedestrian Access has always been a requirement for consideration in the TA. It is necessary for the site to be accessible by all modes of transport."

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- 3.3. Consideration has been made for accessibility for all modes which can be seen in chapter 2 of the TA.

KCC Comment: "Existing Transport Conditions

Para 2.4.6 outlines the location of the local secondary schools to the site. Details are required as to how these schools are to be accessed by local residents of the site."

- 3.4. This has been addressed within the TA as outlined within points 2.4, 2.13 and 2.52 above.

KCC Comment: "Access to the A224 / Crow Drive and Star Hill Road are currently only used in AM and PM peaks only. Star Hill Road – visibility improvements required, possible street lighting at access junction, and localised safety improvements."

- 3.5. Visibility improvements have been carried across from the previous planning application and has been addressed in comment 2.5 above.

KCC Comment: "The distribution of existing traffic will be skewed as the Star Hill Road access is restricted."

- 3.6. This is accepted and therefore the development demonstrates a worse case scenario in terms of impact as when the guarded entrance leaves the site in 2022 there is no limit to the traffic that could use this access. As the proposed development has put in restrictions such as traffic calming to deter use of the Star Hill access it is considered that the distribution in the future is satisfactory.

KCC Comment: "Access to and from the site by pedestrians / cyclists and public transport is poor therefore the developer will be required to provide new and enhanced facilities and services in order that the site can be accessed by all modes of transport. We would expect as a minimum a provision of cycle hubs (including e-bikes), and car clubs to enhance the sustainability of the site."

- 3.7. This has been undertaken and can be referred to in comment 2.6 above which outlines that a cycle route study has been undertaken and that extra cycle facilities will be provided.

KCC Comment: "The capacity for parking at Knockholt Station is based on 2015 surveys. This should be updated."

- 3.8. This has been undertaken and can be referred to in comment 2.10 above.

KCC Comment: "Table 2.1 is shows the summary of rail services, which is useful. The cost of bus services to the stations should be priced to be significantly lower than parking fees. Knockholt station on-street parking should be included separately in Table 2.1"

- 3.9. Table 2.1 is now Table 2.2 and has been updated to include on street parking and parking fees have been addressed in para 2.7.12 of the TA.

KCC Comment: "A cycle route is required between the site and Knockholt station and this should be kept free of parked vehicles. Additional cycle parking is required at the station. A cycle hub (including e-bikes) with cycle hire should be provided. Cycleways should be off road or segregated where possible."

- 3.10. A cycle route has been explored as explained in para 4.5.21 in the TA, with cycle parking addressed.

TECHNICAL NOTE

KCC Comment: "Para 2.7.15 outlines that a shuttle bus operated on site. Details of usage / patronage of DSTL shuttle bus would be helpful. This could be expanded throughout the day. In addition, the route of bus service 431 should be shown. 3-4 services per day is not adequate. Para 2.7.17 outlines various school services which requires clarification and further information. Details need to show a local regular service linking the site to local towns, schools and facilities throughout the day."

- 3.11. Additional details about the DSTL shuttle bus has been provided in para 2.7.20 of the TA and school services being addressed in comment 2.4 above.

KCC Comment: "Details of the traffic generated from the development to these 'hotspots' should be provided."

- 3.12. Table 2.3 has been inserted into the TA to detail the approximate traffic generated through these 'hotspots' within the peak periods.

KCC Comment: "Crash safety data has been reviewed. Since the application was made in 2019 any surveys prior to 2015 should possibly be re-surveyed. All data should be from August 2019 for the previous 5 years. The following points are highlighted:

- *Crashes involving cyclists at Star Hill Road / Morants Court Roundabout – this should be addressed with possible safety improvements proposed.*
- *Star Hill Road bend near to Birchwood Lane / Old London Road safety enhancements should be considered.*
- *Polhill Road / Otford Road crashes need review.*
- *Main Road / Harrow Road / Chevening Lane junction crashes need review."*

- 3.13. New crash data has been obtained for the latest 5 year period available. The updated analysis of the crashes can be found in Section 2.9 of the TA.

KCC Comment: "Policy Review

- *Regional Policy – Kent Design should be included*
- *Sevenoaks Cycling Strategy – any proposals in this area?*
- *National Policy – Manual for Streets 2*
- *Policy T2. IGN3 only applies to residential parking. For other uses refer to SPG4."*

- 3.14. These policies have been added to the TA and can be seen within Chapter 3 of the TA.

KCC Comment: "Development Proposals

The parameter plans are considered separately and will be outlined further below. A bus route continues through whole site from Polhill to Star Hill Road.

The masterplan is indicative, except where identified specifically in the Access & Movement Parameter Plan."

- 3.15. Updated plans have been provided in Appendix F of the TA.

KCC Comment: "Crow Drive is a bus route therefore should be 6.75m wide."

TECHNICAL NOTE

- 3.16. Changes have been made to the masterplan and Crow Drive is now 6.75m to accommodate the requirements for a bus route.

KCC Comment: "Visibility splays given are appropriate for 37 mph. New speed survey should be undertaken? What if 40 mph speed limit introduced? – visibility of 104 m each way (Appendix O)"

- 3.17. It is deemed that a speed survey does not age in the same way an MCC survey does and therefore is no need to redo the survey. More detail can be found in para 4.5.5 in the TA.

KCC Comment: "Trip Generation and Distribution

Para 5.3.2 outlines the modal split applied to residential person trips. Does public transport proportion include those who drive to a train station?"

- 3.18. The split has been based on Census data which accounts for the majority mode used for the journey. This is explained in para 5.3.2 within the TA.

KCC Comment: "It has been demonstrated that existing permitted use (CLEUD – 4000 employees) generates greater traffic numbers than the proposed development – but not necessarily in the same direction and at the same times. Buses used by MoD staff?"

- 3.19. This is correct due to the tidal nature in trips between the CLEUD and residential, more details of which can be found in para 5.5.5 in the TA. The DSTL bus has been detailed in para 2.7.20 within the TA.

KCC Comment: "Para 5.7.1 outlines the two way traffic flows at the Star Hill Road access forecast to be 292. This represents a 101% increase in AM peak, 61% increase in PM peak, which cannot be considered a "modest" increase!"

- 3.20. A penalty has been applied to the trips using the Star Hill access to take into account the traffic calming that has been proposed. As such the impact on Star Hill has been significantly reduced. Full details can be seen in section 5.7 in the TA.

KCC Comment: "In addition, 33% of traffic in AM peak and 34% in PM peak using Star Hill Road access. This proportion needs to be reduced! What proportion of traffic using Star Hill Road is employment / residential users?"

- 3.21. A penalty has been applied to the trips using the Star Hill access to take into account the traffic calming that has been proposed. As such the impact on Star Hill has been significantly reduced. Full details can be seen in Table 6.1 in the TA.

KCC Comment: "The proportion of trips N / S for existing (CLEUD) uses should be demonstrated. A table of comparison would help"

- 3.22. This has been undertaken and can be seen in Tables 5.13 and 5.14 within the TA.

KCC Comment: "A Delivery Management Plan could provide some restrictions on the routing of vehicles associated with the commercial elements. The site layout should deter movements to the south rather than unenforceable restrictions."

- 3.23. A Delivery Management Plan has been included within the TA as to be provided. Traffic Calming measures have been proposed along Crow Drive to deter the use of Star Hill Road. This can be seen in para 5.7.5 of the TA.

KCC Comment: "Highway Impact Assessment

TECHNICAL NOTE

West Kent Cold Store development and the consented OPP for 450 dwellings are included as net development flows.”

3.24. This is noted.

KCC Comment: “Para 6.3.2 and Table 6-1 outline percentage impacts at key links within proximity of the site.

The percentage impact on Star Hill Road (s) may not be acceptable, and measures to reduce commercial traffic should be considered. Furthermore, Star Hill Road stands out as having by far the greatest impact. Crow Drive sees a reduction – is this because more use in HPA than OPP?”

3.25. A penalty has been applied to the trips using the Star Hill access to take into account the traffic calming that has been proposed. As such the impact on Star Hill has been significantly reduced. Full details can be seen in Table 6.1 in the TA.

KCC Comment: “Hewitts Roundabout – the logic of a secondary access off Star Hill Road relieving Hewitts Roundabout does not make sense. Further explanation required as Hewitts is too far north.”

3.26. Hewitts Roundabout has fewer movements passing through that would be using the M25 to travel southbound, as these are now assumed to use Star Hill and pass to the M25 from the south of the site. This has been detailed in para 6.4.8 within the TA.

KCC Comment: “Clarification is required as to whether the models have been validated using queue length surveys?”

3.27. Validation details can be seen in para 6.4.2 of the TA.

KCC Comment: “Polhill Junction/Pilgrims Way West Link Road Junction – It appears that Star Hill Road access is essential in improving other junctions”

3.28. The modelling results shown within Chapter 6 demonstrate this.

KCC Comment: “Construction Impacts

A lot of assumptions have been made at this early stage prior to a contractor is able to input. Whilst it demonstrates that the traffic impact will not be significant, it will need to be covered by a Condition requiring a Construction Management Plan for each Phase to be submitted and approved prior to any demolition or construction works commence – produced in liaison with the main contractor once appointed.”

3.29. This is accepted and is outlined within para 7.1.2 within the TA.

KCC Comment: “No construction traffic will be permitted to use the Star Hill Road access. This should be made absolutely clear.”

3.30. This is accepted and is outlined within para 7.4.1 of the TA.

KCC Comment: “The Construction Management Plan(s) should include details such as routing of vehicles within the site, employee parking, delivery vehicle unloading and turning, wheel washing, and traffic management / signing. These elements are likely to amended as the location of the construction works changes during the construction period.”

3.31. This is accepted and is outlined within section 7.5 within the TA.

KCC Comment: “Sustainable Transport Strategy

TECHNICAL NOTE

Walking and cycling measures have been outlined. This should include cycle at village centre and employment areas. Possibility of electric cycle availability. Also cycle / electric cycle hire between site and the proposed hub at Knockholt Station.”

- 3.32. An enterprise scheme has been explored which can be seen in more detail in para 8.2.9 and 8.3.12 within the TA.

KCC Comment: “The frequency and timing of the 431 bus service required clarification. What is current frequency and will there be any improvement to the service in terms of frequency / running times?”

- 3.33. It is not proposed that any changes will be made to the frequency of the 3 service, as the site is proposing to operate 2 minibuses to serve Knockholt train station and local area. Details of this can be seen in section 8.3 of the TA.

KCC Comment: “The minimum road width for bus route should be 6.75m.”

- 3.34. Changes have been made to the masterplan and Crow Drive is now 6.75m to accommodate the requirements for a bus route.

KCC Comment: “Para 8.3.5 outlines a “demand responsive flexible service”. Clarification regarding the operation of such a service is required. Further details are required. Comparison of bus fare to parking charge at Knockholt station?”

- 3.35. Details about the type of service that the minibuses will provide can be seen in para 2.7.22 within the TA.

KCC Comment: “The primary school could serve local areas outside the development site e.g. Knockholt and Halstead. Could Community Bus be used to transport pupils into the site?”

- 3.36. Details about the use of the minibuses for primary school pupils can be found in para 8.3.6 of the TA.

KCC Comment: “How will younger pupils use the shuttle bus, particularly before new school opens? With or without parents? Details required.”

- 3.37. Comment is similar to the one above in 3.36 and has been addressed in para 8.3.6 of the TA.

KCC Comment: “A framework Travel Plan is to be assessed separately and to follow.”

- 3.38. This is noted and has been provided alongside the TA.

KCC Comment: “In addition, the new primary school should produce separate School Travel Plan (in co-ordination with “Jambusters” website) prior to opening.”

- 3.39. This is noted.

KCC Comment: “Electric cycle hire / cycle hire proposals should be included within the Travel Plan.”

- 3.40. A scheme put together by Enterprise has been put forward and details can be found within the Travel Plan.

KCC Comment: “Summary and Conclusions

TECHNICAL NOTE

Star Hill Road / Rushmore Hill monitoring – should include speed monitoring as well as traffic flows. Should an indication of possible additional traffic calming features be provided at this stage to show that they would be achievable? Target speeds / traffic flows should be specified.”

- 3.41. Monitoring has been carried across from the previous planning application and can be seen in para 4.5.13 and 4.5.14 of the TA.

KCC Comment: “In the OPP Star Hill Road is excluded as a secondary access therefore the increase in traffic between this proposal and the OPP is very significant.”

- 3.42. This is true but as the security on the star hill access is being removed from 2022 it is possible for the existing flows to use this access. Details of this can be found in para 5.6.23 within the TA.

KCC Comment: “How does use of Star Hill Road access affect Hewitts Roundabout? Further explanation required.”

- 3.43. Hewitts Roundabout has fewer movements passing through that would be using the M25 to travel southbound, as these are now assumed to use Star Hill and pass to the M25 from the south of the site. This has been detailed in para 6.4.8 within the TA.

KCC Comment: “Technical Note on Traffic Impact on Nearby Villages (31/10/2019)

Table 1 – doesn’t show that the “majority” of development traffic uses Polhill access.

Star Hill Road access proportions:

AM peak Arrivals 31%

Departures 37%

Two-way 34%

PM peak Arrivals 37%

Departures 32%

Two-way 34%

Statement is misleading.”

- 3.44. The above percentages describe the proportion of traffic which would use the Star Hill access against the total generated by the whole site. For example in the AM peak 31% of whole site arrival vehicle trips would use Star Hill, and therefore 69% would use Polhill. The reporting is not intentionally misleading but this clarification should resolve the comment.

KCC Comment: “Table 2 – Comparison with existing traffic flows would help.”

- 3.45. Further detail on existing Star Hill Road flows and proposed development flows are included in the Updated TA. It is assumed this addresses this comment.

KCC Comment: “Trip generation of existing site (CLEUD) needs confirmation from Planning.”

- 3.46. It is understood that SDC has commented on the CLEUD and accepted it for assessment as an alternative baseline in the TA.

KCC Comment: “Table 3 – Is this a material consideration? Planning view required.

TECHNICAL NOTE

All based on comparison of impact with existing flows.”

- 3.47. As above it is understood that SDC has accepted the CLEUD alternative scenario scenario within the TA.

KCC Comment: “Generally agree that most of the impact on Star Hill Road would be to the south of the access and Morants Court roundabout.”

- 3.48. This comment is accepted.

KCC Comment: Design & Access Statement – Access and Movement Parameter Plans

Section 3.6 Access & Connections outlines that Star Hill road provides an alternative route towards Dunton Green and Sevenoaks. Due to the narrow nature of the rural lane, and previous concerns regarding, the use of Star Hill Road should not be actively encouraged.

- 3.49. The internal site arrangements have been designed to dissuade drivers from accessing Star Hill Road, as confirmed in modelling in the Transport Assessment.

Details of the frequency of bus routes has been outlined. There are three buses during the morning and evening peaks, which will clearly need to be increased and improved. The bus routes are incorrectly labelled on the plan of existing bus routes.

- 3.50. Bus route diagrams were taken from route information available at the time. At the current time, due to the coronavirus pandemic all bus timetables have been removed from bus operator web sites.

The existing walking and cycling routes to the site are poor. As a minimum, we would expect the provision of cycle hubs (including e-bikes) and car clubs. A cycle route is required between the site and Knockholt station, which should be kept free of parked vehicles. Additional cycle parking is required at the station. Cycleways should be off road or segregated where possible.

- 3.51. These matters are resolved up in the Updated Transport Assessment.

Section 5.3 Access & Movement outlines the principles of vehicular and pedestrian access to the site and through it.

Section 7 Character Area Guides outlines each of the character area, including parking typologies. Kent Design Parking standards within Interim Guidance note 3 (IGN3) for rural locations should be utilised to establish the level of parking for the various sizes of dwellings.

- 3.52. Noted.

KCC Comment: On-Plot Corner

Parking located around the corner from the main dwelling frontage, usually on a corner plot. We have concerns regarding the distance of parking spaces from dwellings as this may lead to increased on street parking at a junction.

- 3.53. The comment relates to Parameter Plans and not Reserved Matters Plans. Parameter Plans are not intended to show detail, therefore comments such as this would normally be resolved at the Reserved Matters stage.

KCC Comment: On-Plot Between Dwellings

TECHNICAL NOTE

Garages are generally not counted as parking standards, and should be in addition to parking spaces. Car ports or car barns are preferred. Tandem parking is proposed whereby additional requirements for unallocated visitor parking spaces will be required. The illustrative street plan for a mew street indicates parking in tandem with garages. Planting is at the frontage of the properties, which may impede visibility. The mews will need careful design to ensure sufficient visibility and vehicle turning. Additional unallocated visitor bays may be required.

- 3.54. The comment relates to Parameter Plans and not Reserved Matters Plans. Parameter Plans are not intended to show detail, therefore comments such as this would normally be resolved at the Reserved Matters stage.

KCC Comment: Forecourts

Sufficient turning space will be required for all forecourts. All gates will need to be inward facing and set back from the highway to enable a vehicle to exit the highway as the gates open.

- 3.55. The comment relates to Parameter Plans and not Reserved Matters Plans. Parameter Plans are not intended to show detail, therefore comments such as this would normally be resolved at the Reserved Matters stage.

KCC Comment: On-Street Visitor Parking

Parking bay sizes should measure 2.4 metres x 6 metres.

Shared Courtyard Parking

Natural surveillance is promoted. Sufficient parking dimensions and manoeuvrability will be required with unallocated visitor spaces as required.

Communal

All parking spaces will need to adhere to parking standard sizes, including those bound by boundaries.

Rear Parking Courts

Communal parking containing no more than 10 parking bays. Any panting or walls demarcating the entrance to parking areas must not impede visibility. Rear residential courtyards lack natural surveillance and are often underutilised resulting in on street parking.

On-Plot Frontage

Not to serve more than 8 dwellings. Adequate visibility required due to vehicles reversing to enter or egress the highway.

- 3.56. These comments relate to matters of detail and would be addressed at the later Reserved Matters stage.

KCC Comment: School

Adequate drop off and pick up facilities will be required, which will be subject detailed design.

- 3.57. The school proposals are for land to be safeguarded for a primary school use and are not detailed at this stage. Such matters would be addressed at the Reserved Matters Stage.

KCC Comment: Section 8 Access & Movement

TECHNICAL NOTE

Star Hill Road is to be retained as a secondary access with safety enhancement including a new 40mph speed limit (subject to best endeavours), and improvements to visibility splays.

3.58. Noted.

KCC Comment: The 431 bus service (Orpington High Street to Sevenoaks) is proposed to be rerouted to serve Fort Halstead to provide links to secondary school and facilities in Orpington and Sevenoaks.

Further details of this service are required. The OPP committed to providing a community bus service from the site with further details required as part of this application.

3.59. Service 431 is now service 3. Details of service 3 diversion and DRT minibus service set out in Updated TA.

KCC Comment: A network of routes is designed to encourage walking and cycling through the development. All streets are to be designed in accordance with requirements for a 20mph zone. A new off road cycle route is proposed between the Polhill access to the site access and Knockholt Pound. An on-road cycle lane is proposed between Polhill and Shanklands roundabout, providing access to Knockholt Station.

The location and alignment of Crow Drive and the secondary route is predominantly fixed, with the exception of a few locations where deviation has been introduced to reduce traffic speeds.

Long straight sections of highway are to be avoided. Where this is not possible, additional traffic calming measures have been proposed.

Cross roads are generally discouraged due to the lack of traffic calming that such junctions can have. While junction radii should be kept to a minimum to enable pedestrians to follow straight desire lines, adequate manoeuvrability of larger vehicles on primary routes must be accommodated. Section 4.4 outlines that it is acceptable for large vehicles to use the opposite carriageway when turning in 20mph zones. However, this is not appropriate for a bus route.

3.60. Main bus route carriageway widened to 6.75m and widened around bends to avoid over-running. Design accords with Manual for Streets principles in this case, where crossroads junctions are not discouraged.

KCC Comment: Lighting on Crow Drive

Comments have been sought from KCC Streetlighting and Soft Landscape Teams regarding the outline lighting strategy. Heavy tree coverage is not ideal if street lighting is proposed, whereby the two things do not integrate well in such close proximity. KCC standard is for lighting columns to the rear of the footpath, but in such circumstances such as at this site we do allow lighting columns to be located in the verge, provided the minimum 800mm set back can be achieved.

Unfortunately the proposed tree planting for some areas appears to be so dense that any lighting installed would fail to illuminate both the footway and carriageway simultaneously. The BSEN 5489 states: 'In new streets where trees are to be planted, the lighting should be designed first and the planting sites fixed afterwards'

3.61. As set out above, the current outline application includes Parameter Plans, with detail proposals being put forward at a later date under Reserved Matters Applications.

KCC Comment: LED luminaires are standard across Kent and full details of equipment approved for use on the KCC road network for the applicants reference can be supplied if required.

3.62. Noted.

TECHNICAL NOTE

KCC Comment: 'Using Traffic Calming to Manage Speed in Kent' outlines that traffic calming features within 20mph zones should be illuminated to a consistent standard. What needs to be avoided are inconsistent levels of lighting along a traffic calmed section of road. It would not be acceptable to allow dark patches in areas where traffic calming features are to be constructed. The juxtaposition of trees alongside the street lighting needs to be considered to ensure adequate lighting is achieved where trees are proposed.

3.63. Noted – to be dealt with at Reserved Matters Stage.

KCC Comment: Section 8.7 Crow Drive

A short stretch of Crow Drive from Polhill is subject to a 30mph speed limit. North of this point, Crow Drive will be subject to a 20mph speed restriction. As a bus route, the carriageway width of 6.75 metres is required. During pre-application discussions and meetings, a width of 6.2 metres was suggested as an absolute minimum width subject to tracking and detailed design.

However, tracking of the 6.2 metres width primary width clearly creates some points of conflict.

To ensure viability and adoption of the main distributor roads through the development, it is important that buses will have a continuous passage within the development. During pre-application discussions it has been stated that buses or large vehicles would be able to wait at junctions where potential conflicts may arise. However, this would not be acceptable.

3.64. The proposals have been modified to show 6.75m wide Local Distributor Roads (Kent Design Guide definition) throughout bus routes.

KCC Comment: All footways are 2 metres in width and footway / cycleways are 3 metres in width which is acceptable.

3.65. Noted.

KCC Comment: All dimensions and distances between traffic calming features needs to confirm with the relevant guidance of 60 metres apart for a 20mph road.

3.66. The spacing of traffic calming features has been set out to accord with the relevant guidance for 20mph zones. The exact detail of traffic calming measures will be confirmed at the Reserved Matters Application stage.

KCC Comment: Junction visibility of 2.4 m x 25 m within the 20mph zone and 2.4 m x 43 m within 30mph zone.

3.67. Noted.

KCC Comment: Section 8.8 Traffic calming Measures

Mini roundabouts are proposed in a number of locations, which are acceptable subject to tracking and detailed design.

Squareabouts are present at three locations within the site. Concerns have been raised through pre-application discussions as to the use of such features. The concept (from Kent Design) sees a square feature with road access points at different alignments within the square. KCC Agreements Engineers have questioned the maintenance of such features and the feasibility of providing true traffic calming, when the northern section of the square remains redundant due to the over runnable central island and operates in the same way as a T-junction.

KCC Agreement have suggested a square feature with a raised area which has successfully been utilised as a traffic calming measure. An example of this is at Colehall Farm, Iwade.

TECHNICAL NOTE

- 3.68. Accepted. Modifications to Parameter Plans made to incorporate Iwade example junctions at squares.

KCC Comment: Shared surfaces are proposed in the vicinity of the school and village centre, minimising the segregation between different road users by removing features such as kerbs, road surface markings, traffic signs and traffic lights. The use of contrasting materials allows legibility between pedestrians and drivers.

Overrun strips have been incorporated to enable larger vehicles to negotiate bends without the need for significant visual widening of the carriageway.

Tabletops should be at a maximum height of 75mm. Humps should be avoided on bus routes.

Eyots are proposed at a number of locations by way of traffic island in the centre of the carriageway with an overrun strip and solid central island planter. Maintenance of the planting will need to be considered.

- 3.69. Noted.

KCC Comment: Woodland Arrival

Traffic calming features – raised table, eyots, road humps, mini roundabout, compact roundabout Secure the roundabout between the 30mph and 20mph zones – details agreed in principle.

- 3.70. Noted.

KCC Comment: As a bus route 6.75 metres required.

- 3.71. Carriageway width to Kent Design Guide 'Local Distributor Road' classification provided at 6.75m wide as suggested – shown on parameter plans.

KCC Comment: Materials to be agreed with KCC Agreements at details design. Lighting to be designed before the planting of trees.

- 3.72. Noted – to be dealt with at Reserved Matters Stage.

KCC Comment: Tree-Line Avenue

Traffic calming features – shared surface, raised table, eyots, road humps, squareabout - As a bus route 6.75 metres required.

Parallel on street parking need to ensure does not interfere with traffic movements.

Materials to be agreed with KCC Agreements at details design

Lighting to be designed before the planting of trees.

- 3.73. All of the above noted – to be dealt with at Reserved Matters Stage. 6.75m wide carriageway shown on parameter plans.

KCC Comment: Village Centre

Traffic calming – mini roundabouts, squareabout, shared surface, overrun strip

As a bus route 6.75 metres required.

TECHNICAL NOTE

3.74. Noted – to be dealt with at Reserved Matters Stage. 6.75m wide carriageway shown on parameter plans.

KCC Comment: Parking around the village green will need to ensure safety and not impede traffic movement.

3.75. Noted.

KCC Comment: Star Hill Entrance

Traffic calming – eyots, table tops, overrun strips and mini roundabouts.

As a bus route 6.75 metres required.

3.76. Noted – to be dealt with at Reserved Matters Stage. 6.75m wide carriageway shown on parameter plans.

KCC Comment: Measures to reduce HGV movements, ie turning left out of QintiQ site. Secure the road layout of the Star Hill aspect of Crow Drive. Should be enough deterrents in place to ensure Star Hill Road is not a desirable route.

3.77. Signage will be provided at each exit to QinetiQ plots clearly directing HGVs towards Polhill. Clear instructions to use Polhill entrance to be provided by QinetiQ to suppliers to ensure Star Hill Road is not used for goods access.