

Housing Site Allocations Development Plan Document (HSA DPD)

Transport Assessments Summary

1 Introduction

Transport Assessments form an important part of the background evidence for the selection of sites for allocation. Different levels of assessment have been carried out on the sites under consideration for allocation through the DPD.

- a) Shortlisted Sites – all shortlisted sites¹ were subject to an initial screening by the Council's Highways Development Control Service. This provided a high level indication of the likely traffic generation² from each shortlisted site and highlighted potential highway issues that could impact on deliverability of the site.
- b) Preferred Options sites – Transport modelling, or other suitable assessment of the traffic impact for the short listed sites has been carried out. The Council's existing transport models have been used for sites that fall within their area of coverage but not all sites included in the Preferred Options DPD are covered by a transport model and different approaches have therefore, been adopted for these sites. The modelling does not cover the AONB but, given the small scale nature of these sites, the impacts are likely to be very localised and are therefore more appropriately dealt with at the planning application stage if the sites are allocated.

The table in appendix A shows all the preferred options sites and the level of transport assessment that has been carried out. For sites where transport models have been used the modelling work provides an indication of the likely impacts of development. As the modelling does not take into account future transport schemes or interventions to encourage modal shift that could be used to help to mitigate the developments, the outcomes of the modelling are considered to represent a worst case scenario.

A summary of the Preferred Options sites Transport Assessments is set out in the rest of this document.

2 Transport Modelling

2.1 The West Berkshire Transport Model (WBTM)

The WBTM is a strategic model which covers most of West Berkshire but has the greatest amount of detail and modelling capability in the Newbury and Thatcham areas with some detail in the area around Theale. The model is a traffic distribution model which has been used to assess all the preferred options sites in Newbury, Thatcham and Theale, and includes one of the sites in Cold Ash and one site in Woolhampton.

The model area only covers the one site in Cold Ash in enough relevant detail to be included. For Woolhampton, the two preferred option sites are considered to have a similar

¹ Sites assessed as potentially developable in the SHLAA, and not automatically excluded through the site selection process (details included in the SA/SEA).

² The vehicle movements used in these assessments are taken from the Trip Rate Information Computer System (TRICS), which is a UK database of traffic surveys from different land uses, including residential. Evidence from local residential planning application indicates that a 3 bedroom house will generate approximately six vehicle movements per day, with about 10% occurring during peak travel periods.

impact on the highway network, therefore, because at this stage, it is proposed that only one of these sites will be selected, the slightly larger site has been modelled to provide a worst case scenario.

The model looks at the forecast for 2026 in the am peak (08:00 – 09:00) and pm peak (17:00 – 18:00). Different scenarios have been modelled.

- Scenario 1 is a baseline scenario that takes into account predicted traffic growth plus existing committed development (development with planning permission, or already allocated) without the Preferred Options Housing Sites.
- Scenario 2 includes all the Preferred Options sites in addition to growth and committed development.

Scenario 2 takes a strategic look at the impact that the Preferred Options sites would collectively have on the road network. Detailed work has not been done for each site as this would be carried out as part of a planning application for the sites that are allocated. The model results provide a worst case scenario, not all the sites considered are likely to be allocated within the Housing Site Allocations DPD as some of them represent options from which choices have to be made.

Overall there is a 1% increase in trips across the highway network, compared to the general background traffic growth. This does not represent a significant impact on the highway network and, therefore, is not in itself a cause for concern.

The biggest impact of the housing sites is likely to be on individual junction performance, with a small amount of increased congestion on the local roads nearest to the sites. Further detailed modelling of the junctions themselves would be required to accompany a planning application for any site that is allocated.

Overall junction performance and network congestion is not significantly affected by the Preferred Option sites. In the modelling results the junctions and links within the network are assessed under Scenario 1 and then again for Scenario 2. The majority of junctions and links remain within the same Volume over Capacity (VoC) percentage category in both scenarios.

Two additional scenarios have been considered for Theale to assess potential options for allocation.

- Scenario 3 considers the western sites only (THE003, THE009)
- Scenario 4 the eastern sites only (THE005, THE001).

The outcome of the modelling does not show a significant difference between the two scenarios. However, the modelling only looks at the impact on the strategic road network, not on the very local network where there could be localised traffic impacts that would impact on the deliverability of a site. This will be assessed and mitigated through the planning application process for any sites that are allocated.

The West Berkshire Transport Model report is available in appendix B

2.2 Calcot VISSIM Modelling

The VISSIM model is a very local model which considers traffic along the A4 between Junction 12 of the M4 and the junction with Langley Hill. It is a visual simulation model which covers the network in this area and models the behaviour of traffic on this main route and its junctions and routes that feed into it. The model is therefore, specifically able to model the traffic impact of EUA025, 026 and 007. The modelled outputs from the WBTM for traffic travelling east, from Theale towards Reading, along the A4 have been included, as have an estimation of traffic generated from the other Preferred Options sites to the north of the A4 (EUA003, 008, 031 and 033) taken from the Transport Statements submitted by the site promoter.

The modelling in this area has assumed that all sites will be allocated for development, which is unlikely to be the case in reality as some of them represent options from which choices will be made. It therefore, provides a worst case scenario. As with the WBTM two scenarios have been modelled:

- Scenario 1 (2026 Reference Case) - a baseline scenario showing general background growth and committed development without the allocation of new housing sites
- Scenario 2 (2026 Assessment Options) - assessing the impact of allocation of all the preferred options sites on top of the baseline scenario

Both scenarios include the development of IKEA at Pincents Lane as a committed development scheme.

The modelling shows that queuing and delays in 2026 occur whether or not the Preferred Options sites are developed. The Preferred Options sites are shown to have a marginal effect on the AM peak and PM peak traffic. During the AM peak average delay time per vehicle is shown to increase from 47 seconds to 50 seconds, with average speeds reducing from 40mph to 39mph. During the PM peak average delay time per vehicle is shown to increase from 54 seconds to 61 seconds, with average speed reducing from 39mph to 37mph.

IKEA

The modelling in the A4 Calcot area takes account of the approved IKEA store. The modelling is based on the details of the original planning approval (ref: 11/00218/COMIND) and its associated transport impacts. Subsequently there has been approval of a slight reduction in store size.

Significant modelling work was carried out to assess the planning application. LinSig modelling work undertaken for the A4 Bath Road/Dorking Way/Pincents Lane junction revealed much sensitivity north of the A4 due to the multiple accesses and activities in this location. A number of different iterations have been undertaken to consider what mitigation will be required to avoid excess traffic queues affecting the existing retail area. Significant mitigation, including queue detector loops within Pincents Lane and longer green time to those existing the existing retail area, may need to be provided to alleviate queuing.

The VISSIM modelling shows a significant amount of additional traffic queuing back into the existing retail area in the 2026 Assessment option compared to the 2026 base line (reference case).

The modelling therefore, looks at a worse case scenario as it is based on the larger store and potentially greater transport impacts. With such a significant development in this area and the ability to only 'model' the expected impacts, the Council will be closely assessing the actual impacts of the IKEA store once it is open. It is not considered appropriate to allocate additional development in this area until the actual traffic situation is known.

The Calcot VISSIM Model Report is in Appendix C

3 Site Promoter Transport Assessments

3.1 Eastern Urban Area - Sulham Lane/Long Lane and Stonehams Farm (EAU008, 031, 033)

The site promoter for the above sites submitted a Transport Statement (TS) for each site as part of the Preferred Options consultation. These TS's have been reviewed and verified by the Council's Highways Development Control Service and they are considered to be a reasonable assessment of the impact of these sites.

The Council has raised concern regarding the impact on Long Lane and the junction of Long Lane with Sulham Hill as a result of traffic generated from the development of EUA003/008 and EUA033). Manual for Streets sets out required visibility splays based upon sight stopping distances (SSD) in Table 7.1. Based on recent vehicle speed surveys, the required visibility splays at the Long Lane / Sulham Hill junction are 2.4 x 54.0 metres to the west and 2.4 x 52.0 metres to the east. Measurements taken on site reveal sight lines of only 2.4 x 44.0 metres to the west and only 2,4 x 38.0 metres to the east. The existing sight lines are therefore sub-standard. Long Lane is narrow and winding along some stretches with poor forward visibility. Figure 7.1 of Manual for Streets indicates street geometry required for different sized vehicles to pass. To permit a large and small vehicle to pass a minimum carriageway width of 4.8m is required. Consideration of the widths needed for waste collection and emergency vehicles is also required. Paragraph 6.8.7 of Manual for Streets refers to BS 5906: 2005 and recommends a minimum street width of 5m for waste collection. Improvements to widen parts of Long Lane, and improve the sight lines at the junction with Sulham Hill would be required. No improvements have ever been suggested to the Council to accommodate any additional traffic.

3.2 Pangbourne - Pangbourne Hill (PAN002)

A planning application has been refused by the Council for the site at Pangbourne Hill (14/03135/OUTMAJ). This site was included as a preferred option within the HSA DPD and so the Transport Statement submitted as part of the planning application has been used to assess the traffic impact of this site. The Transport Statement has been reviewed and accepted by the Council's Highways Development Control service. Whilst the application was refused, the traffic impact related to the development of this site was not one of the reasons for refusal and therefore, development on the site is considered to be acceptable in highway terms.

4 Transport Impact Review

4.1 Burghfield Common

No specific transport model is available for Burghfield Common so an alternative means of assessing the likely impacts of the two preferred sites has been used. Two planning

applications for other sites in Burghfield have been received and as these have been assessed as acceptable by the Council's Highways Development Control Service, the details within their Transport Assessments/Statements have been used as an alternative, to provide an indication of whether the highway network in Burghfield would be able to cope with the level of development proposed through the Housing Site Allocations DPD.

The Transport Assessments and additional work carried out show that even if both Preferred Options sites were to be allocated for development the highway network would operate within capacity.

Traffic Impact Review in appendix D

4.2 Hungerford

Two sites were put forward within the Preferred Options DPD as options for development, one to the north and one to the south. No specific transport model is available for Hungerford, so an alternative assessment method has been used. The transport impact from each site has been considered to see which site is likely to be preferable in terms of minimal impact on the highway network.

The assessment of the two sites indicates that the northern site (Eddington Sites) would be likely to generate more car trips than the southern site (Salisbury Road). This is primarily due to the location of the site in relation to services, such as the primary and secondary schools, and the limited scope for improvements to walking/cycling routes from the northern sites to these services.

The difference in the transport impacts between housing development to the north and housing to the south is not significant but the southern housing is marginally preferable from a transport point of view.

Traffic Impact Review in appendix E

5 Conclusions

The transport modelling work carried out indicates that the direct impact of the Preferred Options sites on the highway network is minimal. It highlights that background traffic growth is likely to be the main cause of queuing and delays on the highway network in 2026. It is considered unlikely that all of this growth will occur in reality, due to network constraints, highway schemes and the implementation of other transport interventions that encourage modal shift away from the car to more sustainable modes. Therefore, the modelled scenarios provide a worst case scenario in terms of traffic impact.

Appendix A – Preferred Options Housing Sites and Transport Assessment Methods

Appendix B – West Berkshire Transport Model (WBTM) Report

Appendix C – Calcot VISSIM Model Report

Appendix D – Traffic Impact Review – Burghfield Common

Appendix E – Traffic Impact Review – Hungerford