

Application no: 21/01630/OUT

Location: Land at North West Bicester Home Farm, Lower Farm and SGR2 Caversfield

Transport Schedule

Recommendation:

Objection for the following reasons:

- The traffic congestion impact of the development prior to the construction of the A4095 realignment would be severe. The assessment of the impact of the proposed interim (mini roundabout) traffic mitigation scheme is not reliable, and the scheme is unlikely to provide any significant benefit.

If despite OCC's objection permission is proposed to be granted then OCC requires prior to the issuing of planning permission a S106 agreement as set out in our response of 11 May 2022, plus conditions as set out in our previous responses.

Comments:

The application seeks to demonstrate that the traffic impact of the development can be accommodated on the network, if necessary through a interim mini roundabout scheme at the junction of Howes Lane and Bucknell Road, prior to the construction the A4095 realignment. (The A4095 realignment would pass under a rail bridge - already constructed - thereby bypassing that junction.)

An updated version of Technical Note 8 has been submitted 'A4095 Junction Modelling Rev B'. We have concluded that the PICADY modelled 2026 scenarios of the existing junction arrangement which allows for calibration by reducing demand flows on Bucknell Road north by 14%, is a reasonable prediction of traffic conditions at the junction of Lords Lane/Bucknell Road/Howes Lane.

This calibrated output shows that in 2026 the junction will already be operating over capacity; however the addition of the development traffic would significantly increase queuing and delay. In the am peak, the delay per vehicle on Howes Lane would reach over 13 minutes, which is double what it would be without the development. In the pm peak the delay per vehicle would increase over the period to 17 minutes, compared to about 10 minutes without the development. The Highway Authority considers this to be a severe impact on the traffic network, and therefore it cannot support the development being brought forward ahead of the A4095 realignment, which is required key infrastructure for NW Bicester.

To mitigate the impact of the development on the junction, a mini roundabout scheme has been proposed by the applicant and has been assessed using a calibrated ARCADY model. The results have been used to compare the capacity against the

existing arrangement. However, the ARCADY model has been adjusted to reflect the same calibration applied to the PICADY model of the existing junction arrangement, namely by reducing the demand flows on Bucknell Road by 14%. This is inappropriate, first because with a new, theoretical junction arrangement, calibration does not apply since there are no measured queue lengths to calibrate against, and second because there is no rationale for applying the same factors when the type of junction has fundamentally changed. No reason is given in the technical note for why the calibration factors have been applied to the new junction.

Therefore the conclusion that the mini roundabout would offer mitigation, is unreliable. It is more appropriate to compare the mini roundabout modelled output which uses *unadjusted* flows, with the performance of the existing arrangement (calibrated PICADY output) . The findings suggest that the implementation of a new mini roundabout scheme (as proposed) would only marginally improve capacity at the junction and would not provide a nil detriment mitigation for the development traffic. On some approaches, the queues generated by the roundabout are longer than the predicted queues at the existing junction. The Highway Authority would not accept this scheme as mitigation for the development.

Officer's Name: Joy White

Officer's Title: Principal Transport Planner

Date: 06/09/2022