

A14 Cambridge to Huntingdon improvement scheme

Development Consent Order Application

HE/A14/EX/126

TR010018

E/A14/EX/126

Detailed review of applying IAN185/15 to the noise assessment for
Cambridge Northern Bypass between Histon/Impington and Milton

September 2015

The Infrastructure Planning (Examination Procedure) Rules 2010



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1.1 Context

- 1.1.1 Highways England's response to ExA's First Written Question 1.10.4 (Application reference: HE/A14/EX/37, PINS reference REP2-011) considered the likelihood that retrospectively applying the methodology in IAN185/15 to the noise assessment presented in the Environmental Statement (ES) would change the outcomes of that assessment. The risk assessment identified that there was a moderate risk that the application of IAN185/15 could result in worsened effects for the section of the Cambridge Northern Bypass between Histon/Impington and Milton, and that a detailed review of the implications of IAN 185/15 with regard to the noise assessment for this section should be undertaken. The response to the written question also noted that the detailed review would consider the potential need to provide further noise mitigation in line with sustainability criteria set out in the ES, should such review identify any new likely significant adverse effects.
- 1.1.2 This note reports the outcome of the detailed review.

1.2 IAN 185/15 Requirements

- 1.2.1 IAN 185/15 was published in February 2015, after the submission and acceptance of the DCO application.
- 1.2.2 The IAN provides updated advice to support highway scheme assessments. Of relevance to this note is the advice in the IAN relating to traffic speeds for noise modelling and assessment.
- 1.2.3 IAN 185/15 sets out two steps to be carried out in order to establish speeds to be used in noise assessments:
- 1) Verifying speeds on each road section based on 'as-measured' speed data; and
 - 2) Speed 'banding', where the verified speeds (from step 1 above) are rounded to speed band categories set out in IAN185/15.
- 1.2.4 The implementation of IAN185/15 only affects the traffic speeds used in the noise assessment; traffic flows are not affected.

1.3 Method

- 1.3.1 Following the two steps set out above, the detailed review was carried out as follows:
- 1) 'As-measured' speed data from satellite-navigation (sat-nav) systems was used to establish verified speeds along the Cambridge Northern Bypass.
 - 2) Speed banding was applied to the verified speeds and the resulting data used to update the noise model.

3) A detailed assessment was undertaken between Histon/Impington and Milton based on the revised noise modelling results.

1.3.2 This assessment was carried out based on the latest traffic flow and design assumptions, including CHARM 3A traffic flow data and the confirmation that the noise barrier alongside Orchard Park will remain unchanged in terms of both height and location.

1.4 Results

1.4.1 The results of the detailed review showed that with the incorporation of the IAN185/15 methodology, the predicted long term noise increases at dwellings at Orchard Park close to the Cambridge Northern Bypass would have been up to +4dB in the long term, compared to a maximum increase of +1 dB in the ES. Taking account of IAN185/15, the higher changes would have been at dwellings on Engledow Drive and Flack End.

1.4.2 As detailed in the Highways England response to ExA's Second Written Question 2.10.5, Highways England has committed to installing very Low Noise Surface (vLNS) road surfacing as part of the scheme mitigation along the Cambridge Northern Bypass between the Girton Interchange and the junction at Milton. This surfacing has a performance approximately 3dB better in the long term than the surfacing assumed in the ES.

1.4.3 As a result of the application of the IAN185/15 assessment methodology and the incorporation of vLNS, the noise level changes at Orchard Park due to the scheme would vary between -2dB and +1dB in the long term. These changes would be classified as negligible impacts and no adverse likely significant effects would be identified.

1.4.4 At Blackwell's Caravan site, with the incorporation of the IAN185/15 methodology, the predicted long term noise changes would have been just under -3dB in the long term, compared to -4.5dB in the ES. Taking into account the inclusion of vLNS and IAN185/15, the equivalent noise change would be -6dB in the long term.

1.4.5 This detailed review therefore confirms the risk assessment presented in Highways England's response to Q1.10.4 where, having considered the whole scheme, only the section of Cambridge Northern Bypass between Histon and Milton interchanges was identified as of moderate risk of worsening of noise impact as a result of the retrospective application of IAN185/15.

1.4.6 The detailed results of this assessment (including noise levels at individual receptors) will be reported at Deadline 10 (28 September 2015) as part of a single update to the ES noise assessment taking

account of the further noise mitigation confirmed¹ in the Highways
England Responses to Second Written Questions as well as this
detailed review.

¹ Please refer to Highways England's Position Statement on Further Noise Mitigation
submitted at deadline 8 (2nd September 2015) – Document Reference HE/A14/EX/129