

A14
**Cambridge to Huntingdon
improvement scheme**
Development Consent Order Application

HE/A14/EX/146

TR010018

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Comments on supplementary documents to update the

Joint Local Impact Report

September 2015

The Infrastructure Planning (Examination Procedure) Rules 2010



A14 Cambridge to Huntingdon improvement scheme

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10 September 2015

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1 Introduction

1.1 Purpose of this report

- 1.1.1 Cambridgeshire County Council, Huntingdonshire District Council, South Cambridgeshire District Council and Cambridge City Council submitted a *Joint Local Impact Report (LIR) submission version 1* at Deadline 2 on 15 June 2015 (REP2-184) in accordance with the requirements set out in the Planning Act 2008 (the 2008 Act) and Advice Note One: Local Impact Reports (version 2, April 2012, The Planning Inspectorate).
- 1.1.2 Highways England submitted a response to the Joint LIR submission version 1 at Deadline 4 on 07 July 2015 (Applicant reference HE/A14/EX-47, PINS reference REP4-019).
- 1.1.3 At Deadline 8 on 02 September 2015 Cambridgeshire County Council, Huntingdonshire District Council, South Cambridgeshire District Council and Cambridge City Council submitted the following documents in relation to the Joint LIR:
- Joint LIR submission version 2 (REP8-011);
 - Joint LIR submission version 2 tracked changes (REP8-012);
and
 - Joint LIR - addendum of changes between submission version 1 and submission version 2 (REP8-013).
- 1.1.4 In addition to the *Joint LIR submission version 2*, Cambridgeshire County Council submitted a *Written Representation on Local Traffic* for Deadline 8 (REP08-010) and paragraph 1.1.2 states that;
- “It must be read in conjunction with the Local Impact Report submitted for Deadline 8”.*
- 1.1.5 This interim report has been submitted at Examination Deadline 9 on 10 September 2015 and sets out Highways England’s high level response to the key issues raised in the *Joint LIR submission version 2* and the *Written Representation on Local Traffic* prior to the Issue Specific Hearings.
- 1.1.6 For information relating to the context of the scheme please refer to chapters 1 to 4 of the *Environmental Statement* (Applicant reference 6.1, PINS reference APP-332 – APP-335).

1.2 Structure of this report

- 1.2.1 This interim report only responds to the key issues identified by Highways England within the *Joint LIR Submission Version 2* and the *Written Representation on Local Traffic*.
- 1.2.2 A full response to all amendments will be provided at Deadline 10 on 28 September 2015.

2 Highways England's High Level Response to Key Issues

2.1 Joint LIR Submission Version 2 - Chapter 8

- 2.1.1 Cambridgeshire County Council commissioned consultants to examine the traffic impacts on the local roads. This section was omitted from Chapter 8 in the *Joint LIR submission version 1* at Deadline 2 on 15 June 2015 (REP2-184) and has been inserted in Chapter 8 in the joint LIR submission version 2 (REP8-011).
- 2.1.2 Table 2-1 below responds to the key issues raised in Chapter 8 'Impact on the A14 Cambridge to Huntingdon Improvement Scheme on Local Traffic' in the Joint LIR Submission Version 2 (REP8-011).
- 2.1.3 A full response to Chapter 8 will be provided at Deadline 10 at 28 September 2015.

Table 2-1: Key Issues identified in the Joint LIR Submission Version 2 – Chapter 8

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 – Chapter 8 (REP8-011)	Highways England’s Response
8.2.2	<i>As per WebTAG Unit 3.19, link flows that meet either of the two specific criterion should be regarded as satisfactory. This allows links where only one of the criteria has been met to be considered acceptable for overall flow validation purposes.</i>	The current version of the Department for Transport’s (DfT) Web-based Transport Analysis Guidance (WebTAG) that sets out calibration and validation criteria and acceptability guidelines (and that used for the validation standards of CHARM2 and CHARM3a) is WebTAG unit M3.1 and not unit 3.19. WebTAG was redesigned at the beginning of 2014. The criteria and acceptability guidelines that are referred to – at least for model validation purposes – are however, the same.
8.2.3	<i>Individual link validation for the whole of CHARM2 is reported in Table 3.2 of the J2A Local traffic Impact Report. This demonstrates that, 87% of the morning peak counts meet WebTAG criteria. The inter peak (94%) and evening peak (81%) therefore, the performance of the AM and Inter-peak periods meet the WebTAG acceptability guideline of 85% with the PM Peak marginally below at 81%. In the review undertaken by the County Council it was decided that if >70% of sites on the local road network matched this would be an acceptable level of validation as it is difficult for all model flows to match the count data in all areas in a strategic model with the wide geographic coverage of the CHARM Model. These thresholds have been applied to the assessment of the local impacts.</i>	The <i>Local Traffic Impact Report</i> (LTIR) (Applicant reference HE/A14/EX/73, PINS reference REP6-002) sets out the results of the Local Impact Test (LIT) scenario on version 3a of the Cambridge to Huntingdon A14 Roads Model (CHARM3a). The results presented in Table 3.2 of the Local Traffic Impact Report are the validation of CHARM3a and not CHARM2 as erroneously stated in the Joint Local Impact Report submission version 2 (REP8-011).
8.3.5	<i>Do Something Scenario: This scenario includes the changes to the local and strategic road networks as a result</i>	The ‘Do Something’ scenario referred to here by Cambridgeshire County Council (and in subsequent sections of the Joint Local Impact Report) is actually the ‘Do Something+’ scenario as

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 – Chapter 8 (REP8-011)	Highways England’s Response
	<p><i>of the introduction of the proposed scheme. These scenarios also include the trips and infrastructure improvements resulting from Phase II of the Northstowe development as this can only go ahead once the A14 is improved.</i></p>	<p>referred to in all other documentation by Highways England. The ‘Do Something’ scenario (as referred to by Highways England) contains only the additional infrastructure of the proposed A14 Cambridge to Huntingdon improvement scheme. The ‘Do Something+’ contains both the proposed scheme and the additional development and infrastructure associated with the development of Phase II of the proposed Northstowe development. Within Highways England’s assessments of the scheme, the ‘Do Something’ has been used for economic appraisal whilst the ‘Do Something+’ has been used for the environmental and operational assessments.</p>
8.5.5	<p><i>Of the roads in this area that are predicted to see an increase, the largest of these are on the new sections of road that do not exist in the DM scenario. Of the roads that exist in both the DM and DS scenarios the largest increases are seen on the B1514 between Hinchingsbrooke Park Road and Edison Bell Way where the increase is in the region of 300 PCU’s in both the AM and PM Peak periods.</i></p>	<p>An increase in traffic is expected on the B1514 between Hinchingsbrooke Park Road and Edison Bell Way. With the provision of the Views Common Link and the Mill Common Link and new at-grade connections, this section of the B1514 is used by more local traffic routeing around the town centre. Analysis from the model shows that no strategic traffic makes use of this link. The increases on this section of the B1514 occur in isolation; other sections of the B1514 are forecast to experience reductions in traffic volumes as a result of the introduction of the scheme. There are also significant reductions forecast within Huntingdon town centre (ring-road) as a result of the removal of the viaduct over the East Coast Mainline and new local connections which more than offset the increase on this section of road.</p>
8.5.11 to 8.5.19	<p><i>The roads that need to be addressed through the detailed design phase of the proposed development are as follows:</i></p>	<p>Highways England is committed to ongoing engagement with the Local Authorities throughout the detailed design process. Highways England maintains, however, that the results of the traffic modelling exercise are robust and would not expect significant design changes to be required in the detailed design phase.</p>

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 – Chapter 8 (REP8-011)	Highways England’s Response
8.6.6	<p><i>The results of the modelling in both the CHARM3A + LIT and CHARM3A + LIT D2 scenarios indicates that the introduction of the proposed A14 scheme results in a reduction the levels of traffic on the majority of the roads in this area. There is however predicted to be an increase in the level of traffic using the A1096 junction at Galley Hill due to reassignment from the A1123 and Low Road, and therefore this junction needs to be considered in the detailed design process to ensure that there is no residual impact of the A14 scheme at this junction.</i></p>	<p>Highways England agrees that, for those routes assessed in ‘Area 3’ as defined in the Joint Local Impact Report, the majority of locations result in a benefit from the proposed A14 scheme. The increase in traffic on the A1096 junction at Galley Hill is caused by traffic re-routeing from the A1123 and Low Road onto the de-trunked A14 which, as a result of the introduction of the Huntingdon Southern Bypass, has available capacity to accommodate these trips. This re-routeing is expected as a result of the scheme and is traffic re-assigning to a more appropriate route. Highways England has committed to the monitoring of the junction at Galley Hill (paragraph 7.9.14 <i>Transport Assessment</i> (Applicant reference 7.2, PINS reference APP-756)).</p>
8.7.4	<p><i>The table above indicates that in the CHARM3A + LIT S2 DM the level of increase is greater than in the + LIT scenarios. This is due to the use of the Mean Journey times in this scenario that better represents the conditions on the A14 and therefore there is more traffic predicted on the local roads avoiding congestion on the A14.</i></p>	<p>It is important to note that, in the CHARM3a + LIT S2 sensitivity test as noted, the traffic modelling has not made ‘use of Mean Journey times’ to the extent that a validation exercise against the mean observations has been undertaken. Instead, the sensitivity test has altered the speed-flow curves on the A14 to have reduced capacities (beyond what would be expected of best practice modelling) to better represent conditions worse than the observed median and approaching the observed mean travel times.</p> <p>Highways England agrees that the table referred to does show higher levels of increase in the + LIT scenarios as a result of the additional congestion on the A14 caused by the S2 sensitivity test.</p>
8.7.6	<p><i>The results of the modelling in both the CHARM3A + LIT and CHARM3A + LIT D2 scenarios indicates that the introduction of the</i></p>	<p>Highways England agrees with the principle that increases in traffic on links in ‘Area 4’ should be established as being linked to either the A14 improvement scheme or the proposed Northstowe</p>

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 – Chapter 8 (REP8-011)	Highways England’s Response
	<p><i>proposed scheme indicates that the levels of traffic on the majority of the roads in this area are predicted to reduce as a result of introduction of the scheme. However, greater clarity is required in order to be able to assess whether the increases shown in the DS+ scenarios are as a result of the introduction of the A14 improvements or as a result of Phase 2 of the Northstowe Development. If they are shown to be a result of the introduction of the A14 improvements then this will need to be addressed in the detailed design of the proposed scheme. The key roads in this area that require further investigation are as follows:</i></p>	<p>Phase II development. If increases in traffic on these links were attributable to the expansion of Northstowe and not the proposed A14 improvements then Highways England should not be required to undertake further investigation of potential mitigation options.</p>
8.11.14	<p><i>In the short term as part of the A14 scheme consideration should be given to maintaining left in/left out access at The Avenue, with more extensive consultation on closure and the impacts of closure studied. This is an impact of the A14 design, and should be considered in the detailed design stage of the A14.</i></p>	<p>The scheme proposed by Highways England confers a benefit on trips using the Avenue, by providing an all-access junction with the Local Access Road. The current left-in, left-out arrangement at the northern end of the Avenue is necessitated by the road layout and the joining of the route onto the A14 slip road which is one-way in the northwest bound direction. The design of the Local Access Road is such that all movements can be catered for giving improved access towards Cambridge. The current designs are an improvement on the <i>status quo</i>.</p> <p>Highways England is not promoting the closure of The Avenue. Such a closure would need to be carefully considered in terms of the impacts on residents of Dry Drayton village. Ultimately, either closure or maintenance of existing arrangements would be a decision for the future to be made by the Local Highway Authority.</p>

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 – Chapter 8 (REP8-011)	Highways England’s Response
8.11.15	<p><i>In the longer term solutions to satisfy local traffic demand from the A14 corridor to the A428 corridor should be studied and evaluated. The proposed A428 upgrade from Caxton to the A1 may increase traffic demand from Northstowe to the A428. Similarly the proposal that the A428 becomes an expressway may also increase demand. The A14 and A428 serve different demands, so it is unlikely that the A14 will in anyway provide an alternative route, as has been shown by sensitivity tests carried out by Highways England. Therefore the feasibility of a connection from the LAR to the A428 at Girton should be considered in planning for any upgrade/improvement of the A428 and for Northstowe Phase 3.</i></p>	<p>Highways England agrees that the results of its sensitivity testing of the proposed A428 Caxton Gibbet to A1 scheme have shown that the A14 and A428 serve different demands and distributions of trips. The two schemes are complementary rather than being interdependent.</p> <p>Highways England does not propose to investigate the potential for a link between the Local Access Road and the A428 as part of its A14 proposals. However, the proposed design of the Local Access Road would not preclude investigations of such a scheme in the future should there be a need to do so. What may be necessary or appropriate for Northstowe Phase 3 will need to be determined by the appropriate planning authority when that phase is consented.</p>
8.13.7	<p><i>The results of this analysis indicate that, with the exception of Huntingdon Road (west of Girton Road), the A14 scheme will be beneficial in reducing traffic on many of Cambridge City’s radial routes. However, due to the weaker validation of Cambridge City’s local roads within all versions of the model to-date, the City Council finds it difficult to have full confidence in these projections. Therefore monitoring is expected to be provided by HE on Cambridge radials so these projections can be monitored and mitigation set in place if predicted reductions are not achieved.</i></p>	<p>For the majority of cases, the A14 will have little to no impact on the Cambridge radial routes, particularly in the east and south of the city. Analysis of previous models and forecasts, undertaken in-line with guidance set out in WebTAG unit M3.1 section 2 all show similar results. Highways England agrees that there will be some switching between radials in the north and west of Cambridge (Madingley Road, Huntingdon Road, Histon Road and Milton Road) as a result of the scheme. These are the result of traffic being able to select a more appropriate route into the city as a result of relief on the A14.</p> <p>It should be noted that the validation of the traffic model, particularly the CHARM3a ‘core’ model and the subsequent Local Impact Test (LIT) is very good on the Cambridge outer radial cordon and meets the guidance provided by the DfT in WebTAG</p>

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 – Chapter 8 (REP8-011)	Highways England’s Response
		<p>unit M3.1. It is accepted that the validation of the model within the city centre is less good than the outer radial cordon; however, the level of performance achieved is considered reasonable given the lack of predicted impacts within the city centre and is suitable for the part of the model that does not form the ‘Area of Detailed Modelling’, in-line with tests as set out in WebTAG unit M3.1 section 2 guidance. Highways England considers that the modelling exercise undertaken is aligned with both the strategic nature of the proposed scheme and DfT guidance and the modelling is therefore robust.</p> <p>Without prejudice to that position, in order to give additional comfort to local authorities, Highways England agrees in principle to the monitoring of routes around Cambridge. More detail on this is contained in an update on discussions on monitoring and mitigation submitted at Deadline 9. However, given the lack of predicted impact of the A14 proposals on routes to the south and east of Cambridge as shown by all previous versions of the model, it is unlikely that any mitigation would be required.</p>

2.2 Joint LIR Submission Version 2 – Chapters 2, 9, 10 and 11

- 2.2.1 In addition to the update to Chapter 8, various text amendments have been made in the *Joint LIR submission version 2* (REP8-011) in chapters 2, 9, 10 and 11. The complete list of paragraph changes is detailed in the *Joint LIR addendum of changes between submission version 1 and submission version 2* (REP8-013).
- 2.2.2 Table 2-2 below provides a response to the key issues identified in the amended paragraphs. It should be noted that the paragraph reference numbers in table 2-2 relate to the paragraph numbers as shown on the 'clean' version of the *Joint LIR submission version 2* (REP8-011).
- 2.2.3 A full response to all of the amended paragraph updates will be provided at Deadline 10 at 28 September 2015.

Table 2-2: Key Issues identified in the Joint LIR Submission Version 2 – Chapters 2, 9 10 and 11

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 (REP8-011) Reference – Amended Text	CCC Reason for Text Amendment	Highways England's Response
Cultural Heritage: 9.2.7	<p>Text added:</p> <p><i>“The compaction and distortion of archaeological deposits do not only occur in alluvium or peat, as has been recently evidenced at the excavations for Astra Zeneca’s headquarters building at the Addenbrookes Bio-Medical campus, where funerary urns and burial remains were shattered and distorted, having lain beneath the former hospital car parks and then beneath spoil mounds. If the applicant’s intention is to properly mitigate these areas through a programme of archaeological work, this will be acceptable, but this is not currently present or clear in the mitigation strategy”.</i></p>	CCC has requested more detail on the possible impact and necessity of appropriate mitigation strategy.	<p>Soil storage areas will be archaeologically investigated prior stripping of the topsoil. Archaeological recording will be undertaken to ensure archaeological remains are preserved by record.</p> <p>The proposed mitigation for archaeological investigation, including geophysical survey, trial trenching and archaeological excavation is presented in the Written Scheme of Investigation for Archaeological Investigation.</p>
Cultural Heritage: 9.2.16	<p>Text amended:</p> <p><i>“The construction impacts of the six borrow pits will be major upon buried archaeological remains, requiring a robust approach to the archaeological investigation of these large landscape areas. However, we are not yet able to agree to the mitigation strategy as it does not include all borrow pit areas (borrow pit 5 is omitted from the WSI) nor how they would be specifically examined, or what the research objectives of examination would be. Consequently, the WSI is not in compliance with policy CS36. Assurances need to be provided that the borrow pits will be appropriately examined through prior evaluation in order to</i></p>	Archaeology Written Statement of Investigation (WSI) and Environmental Statement (ES) must present well-specified identified mitigation strategies for these large excavation areas.	<p>This matter is to be further discussed as part of the preparation of the WSIs which will provide a high-level outline of the methodology for archaeological works.</p> <p>Requirement 8 of the draft DCO obliges Highways England to consult the relevant planning authority on the WSI.</p>

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 (REP8-011) Reference – Amended Text	CCC Reason for Text Amendment	Highways England’s Response								
	<i>design the proportionate mitigation strategies needed at these sites”.</i>										
Ecology: 9.3.14	<p>Text added:</p> <p>“Effects on bat roosts are subject to licensing from Natural England (NE). Draft mitigation licence applications are currently being considered by NE. No licence would be issued unless it was demonstrated there would be no adverse effect on the conservation status of bats.</p> <p>The register of environmental actions and commitments includes a commitment to enhance the corridor between Brampton Woods and the scheme to provide better habitat for a range of species including bats and dormice.”</p>	Further information received from Highways England.	<p>A letter of no impediment with regard to the draft bat licence has now been received from Natural England.</p> <p>Highways England remains committed to enhancing the corridor between Brampton Woods and the scheme and to provide better habitats for dormice and bats.</p>								
Noise: 9.4.45	<p><u>Table 22: Residential areas where a significant observed adverse effect from noise, as a result of the Scheme, would be experienced post mitigation:</u></p> <table border="1" data-bbox="600 1034 1256 1337"> <thead> <tr> <th data-bbox="600 1034 770 1098">Location</th> <th data-bbox="770 1034 927 1098">Effect with scheme</th> <th data-bbox="927 1034 1093 1098">Mitigation</th> <th data-bbox="1093 1034 1256 1098">Residual effect</th> </tr> </thead> <tbody> <tr> <td data-bbox="600 1098 770 1337">Dwellings in the vicinity of Great North Road, Manor Lane,</td> <td data-bbox="770 1098 927 1337">Indirect effect as a result of airborne noise increase in road traffic noise.</td> <td data-bbox="927 1098 1093 1337">The scheme would significantly enhance the existing noise mitigation</td> <td data-bbox="1093 1098 1256 1337">No likely significant negative effects</td> </tr> </tbody> </table>	Location	Effect with scheme	Mitigation	Residual effect	Dwellings in the vicinity of Great North Road, Manor Lane,	Indirect effect as a result of airborne noise increase in road traffic noise.	The scheme would significantly enhance the existing noise mitigation	No likely significant negative effects	Amend table to show only locations where a significant observed effect would be present post-mitigation.	<p>The deletions are noted and welcomed.</p> <p>However, Table 22 still shows adverse effects that are not significant observed adverse effects (as relevant to the first aim of NPSNN 5.195). This was noted in Highways England’s response to the Joint LIR submission version 1 at Deadline 4 on 07 July 2015 (HE/A14/EX-47) (REP4-019) The effects at Brampton, RAF Brampton and Pear Tree</p>
Location	Effect with scheme	Mitigation	Residual effect								
Dwellings in the vicinity of Great North Road, Manor Lane,	Indirect effect as a result of airborne noise increase in road traffic noise.	The scheme would significantly enhance the existing noise mitigation	No likely significant negative effects								

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 (REP8-011) Reference – Amended Text				CCC Reason for Text Amendment	Highways England’s Response
	Hillfield, Ash End, Beech End, Maple End, Willow End, School Lane, Sharps Lane, Rusts Lane, High Street, Field Close and Frumetty Lane in Alconbury		measures in this location, replacing the current noise fence barrier with a new taller fence barrier.			Close are likely significant effects in terms of the EIA (because of noise change and principally the number of dwellings exposed to the change). However as set out in the response to the LIR, the future noise levels at these locations are substantially below the relevant Significant Observed Adverse Effect Level (SOAEL). SOAELs and the important difference between ‘significant observed adverse effects’ (on health and quality of life) and ‘likely significant effects’ is set out clearly in section 14.2 of Chapter 14 (Applicant reference 6.1, PINS reference APP-345) and Appendix 14.3 (Applicant reference 6.3, PINS reference APP-707) of the ES.
	Stewart Close, western edge of Brampton (minor)	Predicted increase in noise from road traffic which is likely to cause a minor adverse effect	no specific mitigation proposed	Minor adverse effect on the acoustic character of the area around the closest properties.		
	Western edge of RAF	Predicted increase in noise from	no specific mitigation proposed	Minor adverse effect on		

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 (REP8-011) Reference – Amended Text				CCC Reason for Text Amendment	Highways England's Response
	Brampton (minor)	road traffic which is likely to cause a minor adverse effect		the acoustic character of the area around the closest properties.		
	Rectory Farm Great North Road, Brampton	predicted to experience noise levels higher than the noise insulation trigger levels	The installation of noise insulation would avoid the significant observed adverse effect that would otherwise occur inside these dwellings	Significant observed effect would be avoided		
	Little Meadow and Woodhatch Farm, Thrapston Road, Ellington	Noise levels are currently above the threshold for a significant observed	3m absorptive barrier for Little Meadows and Woodhatch Farm.	current significant observed adverse effects would be avoided with the		

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 (REP8-011) Reference – Amended Text				CCC Reason for Text Amendment	Highways England's Response
		adverse effect.		scheme in operation.		
	Dwellings in the vicinity of Pear Tree Close, Fenstanton	Predicted increase in noise from road traffic which is likely to cause a moderate adverse effect	no specific mitigation proposed	noise levels would remain a significant observed adverse effect		
	Friesland Farm, Conington	significant observed adverse effects	The installation of noise insulation would avoid the significant observed adverse effect that would otherwise occur inside these dwellings	Significant observed effect would be avoided.		
	Foxhollow, Bar Hill	significant observed adverse	The installation of noise	Significant observed effect		

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 (REP8-011) Reference – Amended Text				CCC Reason for Text Amendment	Highways England’s Response
		effects	insulation would avoid the significant observed adverse effect that would otherwise occur inside these dwellings	would be avoided.		
	1-6 Catchall Farm Cottages 13, Cambridge	significant observed adverse effect	3m absorptive barrier for Catchall Farm properties	There would be noise reductions at these location, with the scheme, and further mitigation will be introduced.		
	Crouchfield Villa and Westdene at Hackers Fruit Farm, Huntingdon Road, Lolworth	significant observed adverse effect	3m absorptive barrier for Crouchfield Villa and Westdene – Hackers Fruit Farm, Huntingdon Road			
	Rhadegund	significant	3m			

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 (REP8-011) Reference – Amended Text				CCC Reason for Text Amendment	Highways England’s Response
	Cottages, Huntingdon Road, Cambridge	observed adverse effect	reflective barrier for Rhadegund Cottages, Huntingdon Road			
	Hill Farm Cottages	significant observed adverse effect	4m reflective barrier for Hill Farm Cottages.	Significant observed effect would be avoided.		
	10 dwellings on Lone Tree Avenue	significant observed adverse effect	The installation of noise insulation would avoid the significant observed adverse effect that would otherwise occur inside these dwellings	Significant observed effect would be avoided.		
	30 residential dwellings at	significant observed adverse effect	The installation of noise insulation	Significant observed effect would be		

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 (REP8-011) Reference – Amended Text				CCC Reason for Text Amendment	Highways England’s Response
	Blackwell Caravan Park		would avoid the significant observed adverse effect that would otherwise occur inside these dwellings	avoided.		
Noise: 9.4.47	<p>Text amended: “The impacts at Stewart Close on the western edge of Brampton and at the Western edge of RAF Brampton are identified as minor adverse. No specific mitigation has been proposed by the Applicant in these areas. The local authorities would expect the Applicant to monitor noise levels in these locations to ensure that should they become major adverse impacts the necessary mitigation is provided.”</p> <p>Text added: The Applicant’s response to the ExA’s Q1.10.8 (Response to ExA’s First Written Questions, Report 10: Noise and Vibration (document reference EX/37)), confirms that Highways England will add an additional requirement to the draft DCO to secure permanent noise mitigation. The new requirement secures the details of the noise mitigation for the scheme, reflecting the measures set out in the Environmental Statement.</p>				<p>Highways England’s response to the ExA’s Q1.10.8 in <i>Response to ExA’s First Written Questions, Report 10: Noise and Vibration</i> (Applicant reference HE/A14/EX/37, PINS reference REP2-011)), confirms that Highways England will add an additional requirement to the draft DCO to secure permanent noise mitigation. The new requirement secures the details of the noise mitigation for the scheme, reflecting the measures set out in the <i>ES</i> (Applicant reference 6.1, PINS reference APP-331 – APP-352).</p>	<p>Requirement 12 to the draft DCO will also secure the further mitigation identified in the position statement submitted at deadline 8 of the examination timetable (Applicant reference HE/A14/EX/129).</p>

Joint LIR Submission Version 2 (REP8-011) Reference	Joint LIR Submission Version 2 (REP8-011) Reference – Amended Text	CCC Reason for Text Amendment	Highways England’s Response
Legacy: 11.1.43	<p>Text added:</p> <p><i>“As part of the commitment to support wider legacy objectives, Highways England have commissioned further technical assessment work to look into the possibility of including additional off-site flood attenuation using the borrow pit voids. However they have indicated that If any works were to be taken further on this, they would be progressed independently of the current application as those works are not necessary to address any impacts resulting from the current application”.</i></p>	New information from Highways England.	Highways England will be undertaking a feasibility study into the viability and effectiveness of using Borrow Pits to provide mitigation of pre-existing flooding.

2.3 Written Representation on Local Traffic

- 2.3.1 At Deadline 8 Cambridgeshire County Council submitted a *Written Representation on Local Traffic* (REP8-010) to be read in conjunction with the *Joint LIR submission version 2* (REP8-011).
- 2.3.2 Table 2-3 below provides a response to the key issues identified in the Written Representation.
- 2.3.3 A full response to the *Written Representation on Local Traffic* will be provided at Deadline 10 at 28 September 2015.

Table 2-3: Key Issues identified in the Cambridgeshire County Council Written Representation on Local Traffic

Paragraph Reference	CCC Written Representation on Local Traffic	Highways England's Response
2.1.6	<p><i>In consequence, the CHARM3A + LIT traffic model alone potentially underrepresents the amount of traffic using alternative routes to avoid the A14. This manifests as traffic using local roads to join the A14 closer to Cambridge, and as traffic making alternative route choices. The view of the County Council is that CHARM3A + LIT + S2 is more representative of local road changes resulting from the Scheme. However, since the method in Sensitivity Test 2 manipulated speed flow curves rather than changing journey time coding, it is accepted as being a sensitivity test.</i></p>	<p>The recorded journey times on the A14 between Huntingdon and Cambridge are variable, as observed in TomTom data collected for the development of the CHARM2 traffic model. Highways England accepts that there are a number of days when the journey times along this section of the A14 are as slow as those in the sensitivity test.</p> <p>Highways England considers that the Core forecasts are the most representative of the changes on the A14 and on local roads and reflect the validated Base Year model. There is no evidence that the model systemically underestimates trips on the local road network: the mainline A14 demonstrates good validation against the criteria set out in WebTAG unit M3.1 and does not indicate that flows on this are overstated (and thus by inference that flows on alternative routes are understated). The validation of alternative routes does vary in some locations and in some cases modelled flows may be lower than observed values; however, there is not a systemic underrepresentation of traffic volumes.</p> <p>However, Highways England have agreed with the County Council that CHARM3A + LIT + S2 forecasts should be used as the baseline against which any future monitoring is compared.</p>
2.1.7	<p><i>The County Council remains concerned over the matter of apparent growth in trips into and out of Cambridge City Centre. It</i></p>	<p>The modelled routing patterns in the validated Base Year model are consistent with the Roadside Interview Surveys (RSIs) undertaken on the Cambridge cordon</p>

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	<p><i>appears that there is insufficient congestion and delay within the model. This appears to allow some traffic to route through central Cambridge in preference to using outer orbital roads such as the M11. This is counterintuitive based on local knowledge and experience. The County Council has satisfied itself that this appears to be a feature of the model, rather than a real predicted change.</i></p>	<p>in 2013. There is no evidence in the traffic model that any strategic traffic routes through Cambridge in the Base Year or in the modelled Forecast Years.</p> <p>The predicted traffic growth within Cambridge city is consistent with current guidance and national datasets (National Trip End Model version 6.2) provided by the DfT. It is noted that these national datasets were produced in 2011 and are based on historical trends. It should be noted that the traffic modelling undertaken does not include any mitigation measures that may come forward with proposed developments in the city nor does it include representation of smarter travel measures or public transport incentives that may be proposed by these developments. The traffic model also does not include mitigation schemes that may be proposed by the city and county council as part of its 'City Deal'.</p> <p>The model shows that trips with one end in Cambridge and one end outside of Cambridge use the strategic road network to the maximum sensible extent to select the most appropriate radial route into or out of the city to make the trip. Though the distance through central Cambridge might be shorter, these trips avoid routing through central Cambridge.</p> <p>Some local trips (for example from the Cambridge Science Park to the airport) are modelled as using the strategic road network as part of their trip in the Base Year which is consistent with the evidence from the 2013 RSIs.</p>

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		<p>In the Base Year and the Forecast Year Do Minimum, there are some local trips between the south of Cambridge city and the north of Cambridge city which do route through the centre of Cambridge. A proportion of these trips route on the M11 and A14 in the Forecast Year Do Something, to take advantage of the A14 improvement.</p>
2.1.8	<p><i>With respect to validation, this remains a concern in respect of the local road network.</i></p> <p><i>However, the County Council is satisfied that the routing changes post A14 are plausible and the proportionate change reasonable. Less reliance should, however, be placed on the exact quantum of change in areas with weak validation.</i></p>	<p>Highways England considers that the CHARM3a + LIT traffic model demonstrates good validation against the criteria in WebTAG Unit M3.1 as detailed in section 3 of the <i>Local Traffic Impact Report (LTIR)</i> (Applicant reference HE/A14/EX/73, PINS reference REP6-002).</p> <p>Highways England agrees with the County Council's assessment that the routing post A14 is both plausible and proportionate on the local road network.</p> <p>Highways England considers that the modelling exercise undertaken is aligned with both the strategic nature of the proposed scheme and DfT guidance and the modelling is therefore robust</p>
3.1.2 & 3.1.3	<p><i>This amply demonstrates that the impact of congestion on the A14 influences traffic movements well outside the immediate corridor. In all cases, traffic is using more minor or unclassified roads with the aim of joining the existing A14 at a point closer to Cambridge. In 2001-2003 the DfT made available £4.5m of funding to provide traffic calming in villages along the A14</i></p>	<p>Highways England agrees that one of the consequences of congestion on the A14 is that traffic uses more minor or unclassified roads with the aim of joining the A14 at a point closer to Cambridge. It is a benefit of the scheme that the improvements are expected to reassign this essentially local traffic to more appropriate roads. It would be expected that the local highway authority would support these changes and, possibly, undertake complementary actions to</p>

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	<p><i>Huntingdon to Cambridge corridor in recognition of this accepted problem.</i></p> <p><i>It is not, therefore, at all unexpected that with the construction of the new A14, traffic reverts to using more direct routes to access the Strategic Road Network at the earliest opportunity. This is only possible due to the Scheme, so the impact of these changes is an impact of the scheme. Although, this traffic may originally have been on less appropriate routes, communities along the revised route will perceive the change in traffic adversely. This is not a reason to change the scheme, or a reason why the scheme should not proceed, only that in some locations these impacts may require mitigation.</i></p>	<p>reinforce use of the more appropriate route. It would not be appropriate for Highways England to be providing mitigation for an increase in traffic flow on these roads when it is the result of a transfer of local traffic from a less appropriate road. It is possible that such mitigation may be counterproductive in that it may result in reassignment back to the less appropriate road.</p>
5.1.5	<p><i>Further, none of the existing junctions such as the Bar Hill, South Roundabout, have been subject to baseline modelling. The Council accepts, although it has had only limited opportunity to scrutinise the technical work that Highways England has demonstrated that existing junctions perform satisfactorily. However, in the absence of base year assessment the calibration and validation of the junctions is at large. The Council requested Highways England to provide base year models, but these were not forthcoming. As part of detailed design, the Council will be looking</i></p>	<p>The scheme includes significant remodelling of the Bar Hill junction and, as this junction has been specifically designed to accommodate the forecast traffic flows, no assessment has been undertaken for the existing junction layout (paragraph 7.9.14 <i>Transport Assessment</i> (Applicant reference document 7.2, PINS reference APP-756).</p> <p>Junctions which are new or substantially remodelled as a consequence of the proposals cannot benefit from this base year validation exercise.</p>

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	<p><i>for base year models to validate the future year assessment of existing junctions impacted by the Scheme.</i></p>	
<p>6.1.4</p>	<p><i>Highways England has agreed to the principle of monitoring, and indeed in its response (REP4-011 at 3.4.60) to the County Council's written representation (REP3-006) proposed a number of locations at junctions. However, the Council on behalf of all the local authorities would request a binding commitment in the DCO in the form of a Section 106 Agreement. The commitment should be to monitoring, and if the monitoring demonstrates an adverse impact due to the A14 that mitigation will be funded by Highways England.</i></p>	<p>Highways England recognises that the proposals will result in changes in traffic flow on some local roads. In a large number of cases there is a reduction in traffic as a result of the A14 scheme. However, Highways England accepts that there are some cases where there is an adverse impact. This is a consequence of the redistribution of traffic across the road network as a result of capacity improvements provided by the A14 scheme.</p> <p>However, an adverse impact cannot just be measured as an increase in traffic flow on a single road. For example, it is a benefit of the scheme in cases where one local road has experienced an increase in traffic and a less suitable one has experienced a comparable reduction in traffic. It would not be the responsibility of Highways England to mitigate the increase in traffic on the more suitable road.</p> <p>Both Highways England and the County Council have agreed in the Statement of Common Ground that a Section 106 agreement is not the appropriate instrument by which any monitoring obligation is entered into and have also agreed that the draft legal agreement with CCC on de-trunking will be amended to cover the principle of traffic monitoring and the mechanics of how the monitoring would be carried out.</p>

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7.2.6	<p><i>If public consultation was carried out to the required standards (appended to this representation), the impact on other communities considered, and the cost met by Highways England, the Council would not object to closure of The Avenue. The Avenue is a road of poor standard, and the projected increase of traffic on it would be a concern. In fact, an increase in traffic on both Dry Drayton Road and The Avenue would be concern due to low standard.</i></p>	<p>The Avenue is part of the local highway network. A connection between the Avenue and the proposed Local Access Road is part of the proposals and results in significant benefits for some trips. If the local highway authority wish to close this link in future account would need to be taken of the reassignment of traffic as this may have adverse consequences for Dry Drayton.</p>
7.2.7	<p><i>The Council considers that neither Madingley nor Dry Drayton can be considered in isolation. It is clear that part of the demand to travel though these villages is due to lack of connectivity at Girton and M11 junction 13. Limiting the connection between the LAR and The Avenue to left in/left out or closure of The Avenue would reduce some impacts of the scheme and maintain the status quo. To achieve significant benefits in Madingley would require more drastic measures, such as more road closures, that would have a significant impact on connectivity in the local area. There are no realistic alternative routes to travel between the corridors due to limited connections at Girton and M11 Junction 13.</i></p>	<p>The scheme as proposed by Highways England confers a benefit on trips using the Avenue, by providing an all-access junction with the Local Access Road. The current left-in, left-out arrangement at the northern end of the Avenue is necessitated by the road layout and the joining of the route onto the A14 slip road which is one-way in the northwest bound direction. The design of the Local Access Road is such that all movements can be catered for giving improved access towards Cambridge. The current designs are an improvement on the <i>status quo</i>.</p> <p>Highways England is not promoting the closure of The Avenue. Such a closure would need to be carefully considered in terms of the impacts on residents of Dry Drayton village. Ultimately, either closure or maintenance of existing arrangements would be a decision to be made by the Local Highway Authority.</p>
Appendix D: Systra Technical Note 1.2.7	<p><i>Cambridgeshire County Council also requested a Sensitivity Test of the impacts of the scheme with greater levels of</i></p>	<p>When Systra use the term 'average', this refers to the mean. The median is another definition of average which may be more representative of typical</p>

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	<p><i>congestion within the CHARM 3A model along the existing A14 route. The aim of this Sensitivity Test was to reflect the 'average' journey times along the A14 between Huntingdon and Cambridge rather than the quicker 'median' journey times assumed in the CHARM 3A LIT scenario.</i></p>	<p>conditions. On the A14, the median journey time between Cambridge and Huntingdon is quicker than the mean journey time, particularly during the AM peak period in the eastbound direction.</p>
<p>Appendix D: Systra Technical Note Table 2</p>	<p><i>(Table 2: Area 2 North Traffic Flow Changes)</i></p>	<p>The figures for Count 2.7 'Mill Common Link' in Table 2 are incorrect. The difference between the 2014 Base and the 2035 DS+ must be the same as the difference between the 2035 DM and 2035 DS+ as the link does not exist in either the Base Year or DM and thus the flow in both scenarios is zero.</p>
<p>Appendix D: Systra Technical Note 2.3.5</p>	<p><i>Traffic volumes within Godmanchester are predicted to be significantly reduced by the introduction of the Huntingdon Southern Bypass scheme. In the PM peak period on the A1198 between 450-550 pcus are removed in both directions as a result of capacity on the A14 being made free for local traffic and strategic traffic in turn being forecast to use the A14 Bypass. The adaptation of Mill Common Link also helps reduce the amount of local traffic using The Avenue and Cambridge Road.</i></p>	<p>The reductions in traffic in Godmanchester are not solely attributable to the provision of the new Huntingdon Southern Bypass. In addition to the new bypass traffic reductions in Godmanchester are also (and in a greater part) a result of the removal of the viaduct over the East Coast Mainline and the provision of new local links into Huntingdon that this facilitates. Were the Huntingdon Southern Bypass to be constructed and the viaduct to remain it is likely that Godmanchester would experience little to no relief in traffic.</p>
<p>Appendix D: Systra Technical Note 2.12.4</p>	<p><i>The flows on the A1307 Huntingdon Road are predicted to increase by around 390 to 450 vehicles. Within the model this impact is the result of the increased accessibility of this route due to congestion relief cause by the Huntingdon Southern Bypass scheme.</i></p>	<p>The increase quoted is on a small part of Huntingdon Road. It is not so much caused by the Huntingdon Southern Bypass as by the provision of the new Local Access Road and connections to it which provide the increased accessibility that has been noted. .</p>

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	<i>However, this may not occur in reality due to the levels of congestion that already occur along this route which are not fully represented in the CHARM transport modelling.</i>	Significant congestion is not expected on the Local Access Road or on this section of Huntingdon Road, nor is it forecast by the traffic modelling. Highways England believes that the traffic model is robust, demonstrating good validation on the outer Cambridge cordon.