

# A47 North Tuddenham to Easton Dualling

**Scheme Number: TR010038**

**Volume 9**

## **9.20 Applicant's Written Summary of Oral Submissions at ISH2**

The Infrastructure Planning (Examination Procedure) Rules 2010  
Rule 8(1)(c)

Planning Act 2008

November 2021

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning  
(Examination Procedure) Rules 2010**

The A47 North Tuddenham to Easton  
Development Consent Order 202[x]

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**APPLICANT'S WRITTEN SUMMARY OF ORAL  
SUBMISSIONS AT ISH2**

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<b>Regulation Number:</b>	Rule 8(1)(c)
<b>Planning Inspectorate Scheme Reference</b>	TR010038
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## 1 INTRODUCTION

- 1.1.1 The Development Consent Order (DCO) application for the A47 North Tuddenham to Easton scheme was submitted on 15 March 2021 and accepted for examination on 12 April 2021.
- 1.1.2 The second Issue Specific Hearing (ISH2) for the A47 North Tuddenham to Easton (DCO) application was held virtually on Microsoft Teams on Thursday 4 November 2021 at 10.00am and Friday 5 November 2021 at 10.00am.
- 1.1.3 The Examining Authority (ExA) invited the Applicant to respond to the matters raised and the Applicant confirmed it would respond in writing after the hearing.
- 1.1.4 This document seeks to fully address the representations made by Interested Parties at the ISH2.
- 1.1.5 The Applicant has responded to the issues raised by each attending party and provided cross-references to the relevant application or examination documents in the text below. The document is supported by the following Annexes:
- Annex A – Predicted Traffic Levels in Western Longville
  - Annex B – The Applicant's position in relation to Biodiversity Net Gain
  - Annex C – The Applicant's methodology used in relation to the assessment at Berry Hall
  - Annex D - The Applicant's written submissions on Climate

## 2 APPLICANT'S SUBMISSIONS IN RESPONSE TO MATTERS RAISED AT ISH2

Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
<b>Agenda Item 2: Design</b>			
1	<p>The Examiner asked the Applicant to explain their approach to design and demonstrate how the Proposed Development represents good design and a follow up on the response to the question posed in document <b>REP2-014</b></p>	<p>The Applicant explained the design approach undertaken and explained that there were 14 potential routes and 4 options were shortlisted to be taken to statutory consultation. This is considered in Chapter 2 of the Case for the Scheme (<b>APP-140</b>).</p> <p>The Scheme has been developed with good design in mind and this is explained in section 2.2 of the Case for the Scheme and the Scheme Assessment Report (not submitted as part of the Application) which was one of the consultation documents made available at the time and which is also available on the Highways England website.</p> <p>A modified version of option 2 was announced as the preferred route.</p> <p>Chapter 3 of the Scheme Design Report, Rev.1 (<b>AS-008</b>), describes how the Scheme considers each of the design principles and how each principle has been applied within the design of the Scheme, along with the additional consideration of how the Scheme sought to reduce carbon emissions.</p> <p>This chapter explains that there are 10 principles of good design which should be implemented by a scheme, as identified within Highways England's Strategic Design Panel Progress Report: Good Road Design.</p> <p>The Applicant also notes a detailed response provided in <b>REP3-023</b>, Applicants Response to the Examining Authorities First Written Questions (ExQ1).</p> <p>Therefore, the Scheme has been developed in accordance with the ten</p>	<p>The Applicant has no further comments.</p>

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		<p>principles of good design and the UK DMRB GG103 Good Road Design. These cover the principal objectives identified in the NPS. Further information on accordance with the NPS is contained within <b>APP-141</b>.</p>	
2	<p>The Examiner asked about the design process and whether there was any internal design review panel that the scheme was passed through and how were any comments taken on board to influence the design?</p>	<p>The Applicant explained this was dealt with in reply to Examiners Question 1.0.2 <b>REP2-014</b>.</p> <p>The Applicant worked closely with partners, councils, internal safety engineering and standards team within highways and gone across multiple facets from technical covering road design, drainage environment, landscape noise, all the specialists along with statutory environmental body engagement.</p> <p>Comments received were reviewed by the project team, and they were assessed whether they should be implemented or not, depending on the overall picture of the consultation.</p>	<p>The Applicant notes the latest Strategic Design Panel (SDP) progress report<sup>1</sup> was published in March 2021 and covered the previous 18 months of work, from June 2019 to the end of 2020.</p> <p>Page 13 of the progress report provides the summary of the “Work” the panel undertakes in the context of the Government’s Road Investment Strategies (RIS).</p> <p>“Over the past year and a half (June 2019 to end of 2020), the Panel has applied its advisory powers by:</p> <ul style="list-style-type: none"> <li>• providing advice on embedding Highways England’s design vision and principles via guidance and training.</li> <li>• reviewing and giving advice on Highways England standards and processes.</li> <li>• considering and making recommendations on the importance of corridor design, climate resilience, low</li> </ul>

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			<p>carbon design and biodiversity.</p> <ul style="list-style-type: none"> <li>reviewing and commenting on strategic and recurrent themes and issues associated with the design and procurement of road schemes.</li> <li>overseeing the Design Review Panels (DRP) review of complex and sensitive schemes.</li> </ul> <p>The Applicant confirmed in its response to the ExA that the SDP did not require a DRP to review the Scheme as it was not Complex nor Sensitive.</p> <p>Section 2 of the Progress Report on page 17 outlines a series of "Actions" identified. The Panel made three key recommendations in the first progress report and these were updated in the second report and addressed in the third progress report:</p> <ol style="list-style-type: none"> <li><b>Publish the design vision and principles and develop a good design guide.</b> <ul style="list-style-type: none"> <li>Highways England published its design vision and principles in "The road to good design" in 2018, and these were subsequently incorporated into the DMRB in 2019.</li> </ul> </li> <li><b>Implement the design vision and</b></li> </ol>

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			<p><b>principles effectively to become a practical tool.</b></p> <ul style="list-style-type: none"> <li>Highways England's major schemes continue to be reviewed against the design vision and principles as part of the Project Control Framework (PCF).</li> </ul> <p><b>3. Ensure a design led approach is at the heart of the Design Manual for Roads and Bridges (DMRB).</b></p> <ul style="list-style-type: none"> <li>The design vision and principles have been incorporated into the DMRB and this will continue to inform future revision of relevant standards. The DRP has undertaken design reviews of relevant standards and will continue to do so.</li> </ul> <p>Section 3 of the Progress Report on page 23 outlines the "Design Review" summary for the past 18 months. This confirms that the DRP reviewed 3 schemes and held 3 further follow ups on previously reviewed schemes in development, equating to 6 schemes over an 18 month period Nationally that were identified as being Complex and Sensitive.</p> <p><u>Reviewed Schemes:</u></p>



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			<ol style="list-style-type: none"> <li>1. A66 Northern Trans-Pennine</li> <li>2. A57 Mottram Bypass</li> <li>3. Smart Motorway Programme</li> </ol> <p><u>Follow Up Review Schemes:</u></p> <ol style="list-style-type: none"> <li>1. Lower Thames Crossing</li> <li>2. A27 Arundel Bypass</li> <li>3. A417 Missing Link</li> </ol>
3	<p>Richard Hawker queried that after 14 options why only 4 options were put forward for statutory consultation and why the option being proposed has been modified</p>	<p>The Applicant explained that the preferred route has been summarised in section 2.4 of the Case for Scheme <b>APP-140</b> and the Options Assessment process is covered in section 2.2.</p> <p>Option 2 was developed to remove some of the potential issues identified and these are covered in Section 2.4.4 of the Case for the Scheme <b>APP-140</b>.</p> <p>The Applicant took these factors into account and sought to minimise impact on properties, environment, air quality and noise.</p>	<p>The Applicant has no further comments.</p>
4	<p>Rebecca Clutten, for Mr Anthony Meynell raised a question in terms of compliance of the design with paragraph 4.34 and paragraph 4.4 of the NPS with reference to rep3-044</p>	<p>The Applicant confirmed that good design in terms of cultural heritage effects on Berry Hall is demonstrated in sections 6.9.3, 6.9.4, 6.9.11 and 6.9.12 of the environmental statement <b>APP-045</b>, item CH1 in the Environmental Management Plan <b>APP-043</b> and expanded on in the Applicant's Response to the Relevant Representations <b>REP1-013</b> (page 76). The Applicant stated that paragraph 4.3 and paragraph 4.4 of the NPS has been complied with as shown in section 7 of the Case for the Scheme <b>APP-140</b> and the National Policy Statement for National Works Accordance Table <b>APP-141</b>.</p>	<p>The Applicant has no further comments.</p>

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	and the heritage impact on berry hall estate.	The Applicant's comments need to be read in conjunction with paragraph 4.35 of the NPS.	
5	Richard Hawker questioned that paragraph 4.34 of the NPS can also be taken to refer to landscape and the Applicant missed the opportunity to avoid landscape deterioration as the road is proposed near the River Tud.	The Applicant stated that these issues were taken into account. Para 4.34 of the NPS is not a directive but says "may provide" opportunities for the Applicant to demonstrate good design and the Scheme does. The actual directive is in paragraph 4.35.	Effects on the landscape were considered in the route options appraisal as per the methodology described in Section 2.2 of the Case for the Scheme ( <b>APP-140</b> ). The landscape effects of the proposed scheme were assessed, and mitigation measures proposed in ES Chapter 7 Landscape and Visual Effects ( <b>APP-046</b> ).
<b>Agenda Item 3: Transport and Traffic</b>			
1	The Examiner asked the Applicant to present the case for the Proposed Development and to outline its overall benefits;	<p>The modelling assessment comprises of a strategic model. The model utilised for the assessment of the scheme is called the Norwich Area Transport Strategy Model (referred to as the NATS Model). The NATS model, utilised for the PCF stage 3 preliminary design work has been developed in line with the DfT's Transport Appraisal Guidance (TAG).</p> <p>The model has 2 forecast years 2025 and 2040 for 2 core scenarios DM and DS. The comparison of DS and DM highlights the benefit of the scheme</p> <p>The NATS traffic model analysis shows that strategic traffic growth will cause an increase in traffic flows.</p>	The Applicant has no further submissions to make.

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		<p>WRT AADT between Hockering and Honingham: This represents an approximate increase of 33% from 2015 to 2025 DM and a 50% increase from 2015 to 2040 DM.</p> <p>The traffic growth will result in increased journey times in the DM scenarios compared to the Base Year. Model results between Fox Lane and Longwater Junction A47 in approximate terms, show increases of up to around 1 min in 2025 and 3 min in 2040 (depending on direction and time period).</p> <p>The results of the modelling assessment show that the Scheme improves the overall operation of the network in terms of average speed 1.6-2.9%. This entails when you consider all movements across the study area there is a benefit in average speeds as well as improving A47 peak hour journey times by approximately 3.5 to 5.5 mins in 2025 and 4 to 7.5 mins in 2040 (approximately 35% to 54% depending on direction and time period).</p> <p>The DfT Cost and Benefit to Accidents – Light Touch (COBA-LT) software is used to calculate the impact of the Scheme, in terms of the number of accidents and the number of casualties, by comparing the DM and DS scenarios. The COBA-LT model study area is based on a sub-area, or cordon, of the NATS model.</p> <p>In summary, the COBA-LT analysis demonstrates that the Scheme improves road safety by reducing the numbers of accidents and consequently the number of casualties.</p> <p>The Scheme improves safety along the A47 by providing upgraded dual carriageway alignment and improved grade separated junctions. In total, over a 60-year timeframe, the Scheme's improvements will save a total of 291 accidents and 47 KSIs (killed or seriously injured)</p>	

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		<p>Total accident benefits generated by the scheme over the same period amount to about £11.48m of economic benefits.</p> <p>Level 1: In terms of overall economic benefits the initial BCR is 1.7 which represents 'medium' Value for Money (VfM), this includes travel times savings, accidents and vehicle operating costs as well as other sources; and</p> <p>Level 2: Inclusion of journey time reliability benefits and wider economic impacts gives an adjusted BCR of 2.2. This also represents 'high' VfM.</p>	
2	<p>The Examiner (and Mair Bain) asked how the scheme proposals fit in with the government policy of encouraging model shift away from car use to public transport, cycling and walking, and within the overriding desire to reduce carbon emissions.</p>	<p>The Applicant explained that the proposal includes a calculation which balances the traffic demand and a modal shift in its variable demand model.</p> <p>The Applicant explained that this is also touched on in the Population and Human Health item of the Agenda.</p> <p>The Applicant explained that there is a National Policy Statement (NPS) in place that sets out the compelling need for the development of the national road network (paragraph 2.22) and that improvements to trunk roads and in particular dualling is one of the ways in which this can be done (paragraph 2.23). The NPS is the standard against which this application is currently being assessed. To the extent that there are future government policies or change in policy, those are important and relevant considerations but section 104 of the Planning Act 2008 directs the Secretary of State to decide the application in accordance with the relevant national policy statement.</p>	<p>The Applicant has no further submissions to make.</p>
3	<p>Richard Hawker asked how is predictive modal shift accounted for in</p>	<p>The Applicant explained that the traffic model includes variable demand components which include public transport and modal choice aspects.</p>	<p>The Applicant highlights that through the provision of a parallel sideroad network running east – west that this could unlock</p>

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	<p>the model and how the scheme enhances the possible modal shift?</p>	<p>The Applicant notes that existing bus services in local area are poor and the A47 is not an attractive route for buses due to congestion and issues around exiting and entering the strategic road.</p> <p>The strategic route will open up the opportunity for buses to use it.</p> <p>The Applicant isn't able to promote a bus route as part of the Scheme.</p>	<p>such bus route improvements in the future. The Applicant has not attributed any benefits to this element.</p> <p>The Case for the Scheme <b>APP-140</b> Section 5.4 covers the Non-Monetised Benefits and Social and distributional impacts; Table 5-2 Social Impacts Summary outlines that "Public transport is not affected by the scheme, therefore there is no significant impact on option and non-use values".</p> <p>Further in Table 5-2, under the "Accessibility" indicator the Applicant has also stated that "Changes in the cost or provision of public transport will not result from the scheme."</p> <p>Table 5-3: Distributional impacts summary, also confirms that for the Accessibility metric, this was scoped out and no assessment was undertaken. "The Scheme itself is not expected to have any significant impacts on public transport accessibility so this was scoped out of the assessment.</p> <p>With regards to evidence, this comment was raised verbally during the Statutory Consultation Events and also in writing during the Statutory Consultation period. The Applicant would direct the ExA to the following references within the Applicants Consultation Report.</p>

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			<p><b><u>APP-038 – 5.2 Annex N: table evidencing regard had to Statutory Consultation Responses</u></b></p> <ol style="list-style-type: none"> <li>1. Page 9 – Honingham Parish Council</li> <li>2. Page 21 – Easton Parish Council</li> <li>3. Page 24 – Row 3</li> <li>4. Page 74 – Row 2</li> <li>5. Page 116 – Row 6</li> <li>6. Page 118 – Row 1</li> <li>7. Page 192 – Row 4</li> <li>8. Page 192 – Row 5</li> <li>9. Page 237 – Row 3</li> <li>10. Page 237 – Row 4</li> <li>11. Page 239 – Row 6</li> </ol>
4	<p>The Examiner asked the Applicant to consider the relationship of the Proposed Development with the proposed Norwich Western Link (NWL), including measures should the NWL not be delivered</p>	<p>The Applicant refers to section 9 of the Scheme Design Report <b>APP-142</b>.</p> <p>In Section 9, the Applicant has outlined the interrelationship with other major developments along the A47 corridor. Section 9.2 covers the Applicant's position on NWL. The Applicant has worked collaboratively with NCC who are promoting the NWL and the Applicant and NCC are engaged in regular discussions to ensure a joined-up approach towards the scheme development and the modelling of both schemes.</p>	<p>The Applicant has no further submissions to make.</p>

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	and the implications upon the surrounding road network;	<p>The Applicant refers to responses to relevant representations <b>REP1-013</b> and common responses B, D and E.</p> <p>Section 4.9 of the Case for the Scheme <b>APP-140</b> outlines the scenarios with or without the NWL as part of the modelling assessment.</p>	
5	Richard Hawker asked why the A47 scheme uses 2015 NATS and NWL scheme uses 2019. Why has the A47 not been updated using that data?	<p>The Applicant has covered this question within document 9.2 the "Applicants Response to Relevant Representations, Common Response E in <b>REP1-013</b>.</p> <p>The Applicant's scheme has been in development for a long period of time, and the Norwich Western Link came along after the Applicant's scheme had commenced.</p> <p>As part of the NWL scheme development, DfT asked the NWL team to develop the updated 2019 NATS model. As touched on previously that model is not yet approved by DfT</p> <p>The Applicant has taken all steps possible to ensure that the survey data is validated, has been updated and that the models coincide, and that any discrepancies are fully understood.</p> <p>This will be covered in a statement a common ground between the Applicant and Norfolk County Council with regards to traffic modelling.</p>	The Applicant has no further submissions to make.
6	The Examiner asked the Applicant to consider the impact of the Proposed Development upon the surrounding road network	<p>The Applicant engages on a regular basis with the NWL project team, where we regularly share information to ensure an efficient approach to design, such as survey information, ground investigation information, design information and as touched on earlier traffic information.</p> <p>The NWL scheme has now appointed Ferrovia Construction as Contractor and the Applicant has a contractor appointed in Galliford Try. There is now a dialogue in place between parties to establish the construction methodology and phasing to ensure that a cohesive</p>	<p>The Applicant confirmed that it would provide a list of responses on sideroads for the ExA to easily identify groups of responses.</p> <p><b><u>Weston Longville:</u></b></p> <p>Applicant's Response to Relevant Representations (<b>REP1-013</b>): RR-004.1 &amp; RR-004.2</p>



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		<p>approach is developed that will have the least impact on the local area for the customers.</p> <p>The Applicant has submitted an Outline Traffic Management Plan (<b>APP-144</b>), which outlines the proposed phasing and construction methodology.</p> <p>The Scheme removes the existing Easton at grade roundabout, which will be removed around 16 months into the construction programme. The closure of church lane will have an impact on the surrounding local road network in terms of the vehicle dispersal as a result of the closure. This has been modelled by the Applicant and the NWL team, and as a result the Applicant has included mitigation measures within the DCO to include a TTRO on Honingham Lane to mitigate traffic movements</p> <p>The Applicant has also been engaging with Weston Longville Parish Council, through Norfolk County Council to ensure that any impact is also mitigated. The applicant attended a meeting with NCC 2 weeks ago at which a concept and process for deploying a scheme of mitigation works in the interim period between the A47 opening and the NWL opening. This will be secured through an agreement with the Applicant and Norfolk County Council and included within the Statement of Common Ground.</p> <p>The B1535 Wood Lane sideroad is the local highway authority HGV route linking the A47 and A1067 Fakenham Road and therefore the Applicant has accounted for that in the proposed design. The Applicant worked with stakeholders around the connection of the B1535 to the junction.</p> <p>Norfolk County Council are aware of the issue at Weston Longville and have a pre-standing requirement from their Norfolk Distributor Road</p>	<p>Applicant's Response to Written Representations (<b>REP3-022</b>): Section 24</p> <p>Applicant's Comments on Responses to the Examining Authority's First Written Questions (ExQ1s) (<b>REP3-023</b>): Section 8</p> <p><b><u>Taverham Road:</u></b></p> <p>Applicant's Response to Relevant Representations (<b>REP1-013</b>): RR-006, RR-007, RR-010, RR-037.8, RR-039.1, RR-046.3, RR-046.4, RR-050.2, RR-050.3, RR-050.4, RR-050.5</p> <p>Applicant's Response to Written Representations (<b>REP3-022</b>): Section 8, 9, 15(3)</p>



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		<p>DCO; the NWL scheme is the NCC answer to address the north – south traffic issues.</p> <p>The Applicant provided a summary of the design around the C174 Taverham Road and the proposed traffic mitigation measures at Taverham Road as a result of the closure of Church Lane.</p> <p>A technical note (REP1-014) was produced to demonstrate that there were no significant impacts on the traffic flows at the Longwater Junction as a result of the Applicants proposals.</p> <p>The Applicant has continued to engage with the local highway authority and has made further proposals to reduce speed limits on Taverham Road (30mph), Dereham Road (30mph), Wood Lane (50mph), Lyng Road (50mph) which have been accepted by the local authority.</p> <p>As part of the NWL scheme the remaining length of Taverham Road will also be reduced to 30mph.</p> <p>The Scheme closes Church Lane (unclassified local road) to through traffic based on Statutory Consultation feedback and engagement with the local highway authority, Local Liaison Group and stakeholders.</p>	
7	<p>The Examiner asked what are the predicted traffic levels in Western Longville.</p>	<p>The Applicant to provide this information in writing. The Applicant looked at significant modelling.</p>	<p>The Applicant has included a table, in Annex A to this document, which summarises the various scenarios ran including the implementation of the TTRO on Honingham Lane.</p>
8	<p>The Examiner asked the Applicant to update the Examiner on the proposed transfer of</p>	<p>The Applicant is continuing to engage with NCC for handover of the parts of the A47 that will be de-trunked. The parties hold a regular de-trunking call.</p> <p>Asset inventory data has been requested from the Applicant and is</p>	<p>The Applicant has no further submissions to make.</p>

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	assets.	prepared for NCC. This will form part of the Statement of Common Ground with NCC.	
9	Mr Meynell discussed agricultural traffic and increase in traffic on Berry's Lane and through Honingham	<p>The Applicant disagrees that this will lead to an increase in traffic through Honingham.</p> <p>The Applicant has worked with Honingham Parish Council throughout the scheme development to ensure that the proposals did not lead to increased traffic through the village.</p> <p>To that extent, there are build out features included within the Applicants submitted scheme to reduce traffic and create chicanes on the west side of the village at Dereham Road and at the east side towards Honingham roundabout.</p> <p>Additionally, the Applicant has worked to reduce Dereham Road to a 30mph speed restriction which is part of the Applicants scheme and was agreed by the Local Highway Authority.</p> <p>The Applicant's proposal introduces new side roads of a higher quality than Berrys Lane and also have a higher speed limit, therefore it allows agricultural traffic to operate on a wider carriageway at a higher speed rather than on a single carriageway rural lane.</p> <p>The Applicant also notes that on Berrys Lane there is a school at Merrywood House, and therefore the impact on that also has to be assessed.</p> <p>The Applicant's proposals are based on significant consultation feedback and significant engagement through the Local Liaison Group (LLG) and South of the A47 Taskforce (chaired by George Freeman MP).</p> <p>Concrete blocks (known as poachers blocks within the agricultural</p>	The Applicant has no further submissions to make.

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		<p>industry) were highlighted to the Local Highway Authority as potential mitigation measure to the access concerns on Honingham Lane around facilitating restricted access to agricultural traffic.</p> <p>The Applicant was advised by the landowner who initially proposed this mitigation that, in hindsight, these were not fit for purpose as they only permit access for certain types of agricultural vehicles and equipment.</p> <p>Norfolk County Council would not accept the use of these blocks on the local highway network as they are not a product that has been tested or has any of the required approvals to allow use on the local highway network.</p>	
<b>Agenda Item 4: Biodiversity</b>			
1	<p>The ExA asked the Applicant to outline their approach in respect of biodiversity, including providing an update on any additional survey work undertaken since the submission of the application;</p>	<p>The Applicant stated that the approach to ecological impacts set out in Chapter 4 <b>APP-043</b> and in Chapter 8 <b>APP-047</b> of the Environment Statement.</p> <p>The Applicant started with obtaining a EIA Scoping Report and Opinion in accordance with DMBR assessment methodology. The magnitude of the potential effect is assessed in accordance with DMRB LA 118 Biodiversity design. The Applicant has also undertaken the assessment in reference to the Chartered Institute of Ecology and Environmental Management, ecological impact assessment guidelines from 2018. All done in accordance with best practice</p> <p>When the EIA was written, the survey data was within two years of the EIA and submitting the application. This is in accordance with same guidelines, dated April 2019, on the lifespan of ecological reports and surveys. The advice note provides further guidance about survey data that's in the region of between 18 months and three years old. With this</p>	<p>The Applicant has no further submissions to make.</p>

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		<p>data and in accordance with the guidelines, the Applicant has instructed a professional ecologist to undertake a site visit, undertake an updated desk study and review the validity of the report based on certain factors.</p> <p>Surveys have been carried out since the Environment Statement was written. The Applicant is looking to provide an Addendum update for the Environment Statement chapters.</p> <p>Surveys will be updated in 2022 for habitats, invasive species, white-clawed cray fish, reptiles, owls, badgers. This is to provide a more current baseline for biodiversity metrics using up to date methodology.</p> <p>The Applicant is going to review the preliminary risk assessment for bat roost potential and trees and buildings on site. Any features that are identified that could have that risk potential will be taken forward, and further survey work will be carried out to be clear on the picture of hibernation and summer maternity, whatever type of roost is being used, what the status of the roost is, and those surveys will be carried out at the appropriate time. The Applicant will also be updating surveys for the crossing points for bats in 2022 to ensure the most up to date base line information for the further monitoring that the Applicant has committed to post-construction in years 1, 3 and 5.</p>	
2	<p>Rebecca Clutten (for Mr Meynell) asked to what extent disturbing bats in the hall roof (referred to at paras 35 of REP1-045) would be captured by the surveys or whether it is a gap which needs to</p>	<p>The Applicant stated that surveys undertaken include emergence of features and re-entry surveys of all features within 50 metres of the DCO boundary.</p> <p>These surveys were updates of surveys carried out in 2017 (which covered a wider area) and these surveys included Berry Hall. It identified bats at Berry Hall and Berry Hall Ice house. The area was not surveyed in 2019 as they were outside the affected area and would not be disturbed by the works. Therefore, this area is not required to be re-</p>	<p>The Applicant has no further submissions to make.</p>

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	be filled.	surveyed.	
3	The Examiner noted that the Applicant is working with Norfolk County Council in relation to data and asked whether there could be areas and issues which are not agreed between the parties.	The Applicant does not foresee that outcome as the Applicant and Norfolk County Council are engaged in constructive conversation and should be able to agree on further any survey work that that will be required during those discussions.	The Applicant has no further submissions to make.
4	The Examiner asked whether the information would be available when the examiner will be looking to make a recommendation.	<p>The Applicant explained that surveys are seasonally constrained and the Applicant should have more information and a better understanding of what further emergence and re-entry surveys will be required following the updated preliminary roost appraisal.</p> <p>The emergence and re-entry surveys will be updated between May and August 2022 and will be carried out to strict guidelines to ensure the Applicant has the right information to apply for any required mitigation licences.</p> <p>The mitigation licences to be applied for under the Habitat Regulations are for bats and for great crested newts. Natural England is the competent authority charged with determining applications for mitigation licences. The Applicant is consulting with Natural England to determine the draft method statements for the licences and determine their approval of the draft method statement. With respect to bats, the Applicant has carried out a lot of survey work of the potential roosts in 2019 (based on the 2017 surveys). These will be re-surveyed in 2022.</p>	The Applicant would like to clarify that the mitigation licence for bats is an A13 licence and the mitigation for great crested newts is an A14 licence.

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5	<p>To consider the suitability and adequacy of protected species surveys;</p> <p>To consider the in-combination effects of the Proposed Development with other developments;</p> <p>And also, just to look at the suitability adequacy of the protected species service, there was points made in the Norfolk County Council local impact reports, which questioned a number of those and I think they were responded to but it didn't seem to go into a great deal of detail in terms of your response on the local impact reports in terms of detailing the comments that were raised by the county council. So if you could have a</p>	<p>The Applicant confirmed that Common Response I in the Applicant's responses to Relevant Representations <b>REP1-013</b> provided a response to the in-combination and cumulative impacts of the Scheme and the NWL.</p> <p>The two schemes have agreed to share data, and this has been requested of NWL, although the Applicant understands that this survey work has only recently been completed. Once received the Applicant will review this in-depth, together with the interim report. The information we have available to us will be included in an addendum to the ES.</p> <p>The Applicant will continue to liaise with the NWL project team in this regard.</p>	<p>The Applicant has no further submissions to make.</p>

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	consideration to those when you reply		
6	To consider the submissions of various IPs with regards to a recently identified nearby bat colony;	<p>The Applicant stated that initial surveys carried out in 2017 identified barbastelle bats in the woodlands, especially the woodlands to the west of Taverham Road. Activity transects surveys were undertaken twice a month, and static detector surveys carried out at least once per month. Eight transects and nine static detector locations were surveyed in both 2017 and 2019, therefore, a lot of data has been gathered and assessed. The 2019 survey data confirmed the same general species assemblages and levels of activities as was identified in the 2017 surveys. There is likelihood that barbastelle bats are roosting in woodlands just north of proposed scheme and this has been picked up in Environment Statement Chapter 8, paragraphs 8.60 – 8.7.63 <b>APP-047</b>. This summarises the bats positions and areas of high activity.</p> <p>The presence of bats around the site has and will continue to be assessed. The presence of a super colony 5.5km away has been addressed in the relevant representation responses <b>REP1-013</b> - that colony is some distance away. The Applicant is aware there are barbastelle bats using habitats near the site of the Scheme. The body of information submitted doesn't change the importance of the site for bats and will not change the overall assessment of the importance of the area and crossing points.</p>	The Applicant has no further submissions to make.
7	The Examiner asked whether there are any other effects of the donor we've discussed, which need to be considered and are	<p>The Applicant is looking at every ecological feature that that is important to this scheme and in the NWL scheme and looking and at the zone of influence of both schemes combined. The Applicant is going to update the Cumulative Impact Assessment <b>APP-054</b> and provide an update.</p> <p>The Applicant's initial assessment is that the mobile species, including</p>	The Cumulative Impact Assessment (Chapter 15) of the Environmental Statement is to be updated and will be provided at Deadline 6.



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	being considered?	bats, are really the only biodiversity resource where in-combination effects require detailed assessment. Given the overall impact assessment in the conclusion of the residual effects being large adverse, both schemes, combined together, will have similar effects. The Applicant does not believe this is going to change the assessment, though this has not been completed.	
8	The Examiner asked the Applicant to consider the issue of Biodiversity Net Gain and the Applicant's position in relation to this; and	<p>The Applicant stated that quantifying this is difficult. The scheme will seek to maximise biodiversity delivery in accordance with the current statutory and policy requirements. This will be achieved through considered planting to create new or extended landscape and biodiversity elements including species rich grass land, hedgerows, trees, woodland and biodiversity wetlands. This is shown in the Environmental Masterplan revision 2 <b>REP 3-016</b> which was submitted at deadline 3.</p> <p>Further to that, as is referenced in the response to question 3.0.7 <b>REP2-014</b>, the Landscape and Ecology Management Plan (LEMP) will also come forward and will describe the proposed management monitoring including durations of the landscape and ecological mitigation and compensation features of the scheme.</p> <p>The Applicant is committed to minimising environmental impacts, and maximising the biodiversity that is deliverable, and protecting and enhancing the quality of the surrounding environment and this is written into the terms of the Highways England licence which binds the Applicant. The guidance section of the licence indicates that Highways England should where appropriate work with others to develop solutions that can provide increased environmental benefits over those which can be delivered alone where this delivers value for money. Protecting biodiversity is entrenched within the government road investment</p>	Please see a further note in relation to biodiversity at Annex B of this document.



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		<p>strategy, which states that the Applicant must achieve no net loss of biodiversity during the second road investment strategy period and deliver net gain in the longer term.</p> <p>The Applicant is seeking no net loss in biodiversity but this is not possible to quantify at this stage.</p>	
9	<p>Paul Clarke (Brown &amp; Co) referring to the Environment Master Plan (APP138) states that one of the notations refers to land north of northern dumbbell roundabout (Wood Lane Junction) is identified as having a major conservation of biodiversity and various other attributes. This land could be better used for road side services.</p> <p>There is land to the south of a proposed attenuation lagoon, which would be better and more effective in fitting in with the existing board land and</p>	<p>The Applicant has responded to this in RR 022.1 <b>REP1-013</b>. The area is to be used for environmental and ecological mitigation.</p>	<p>The Applicant has no further submissions to make.</p>

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	the proposed attenuation.		
10	The Examiner asked the Applicant to outline proposed mitigation measures for bats and how these measures will be secured	<p>At this stage, the Applicant is unsure what additional mitigation could be and will engage with stakeholders if the monitoring shows that the proposed mitigation is not working.</p> <p>Mitigation could take form of planting more trees or taking strategic actions and putting together a holistic strategy. The Applicant will ensure that data is shared at the regional level and if additional mitigation is required then the Applicant will take that away and consider whether EMP needs to be amended to reflect that commitment.</p>	The Applicant has no further submissions to make.
11	Rebecca Clutten (for Mr Meynell) stated that notwithstanding legislative obligations, it is common biodiversity net gain to be quantified. prepared such as the Sizewell C project.	The Applicant stated that this will be provided in writing but the metric 3.0 has not yet been agreed which has made it difficult for the scheme. With the Environment Bill coming in, it is incumbent not to propose something that the Applicant cannot comply with this.	Please see a further note in relation to biodiversity at Annex B of this document.
12	With regards consideration of Wild Wings ecologies research findings, Richard Hawker	<p>The Applicant has covered this in <b>REP1-013</b>.</p> <p>The Applicant has plans showing where the colony is but detailed data about the location and the GPS data of the routes has not yet been received. NCC has not received the data yet either.</p>	The Applicant has no further submissions to make.

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	<p>wanted to know what has been received? Would the confirmed presence of a super colony make a difference to the measure the Applicant would look at for the A47 application.</p>	<p>The Applicant would require this data to be included in the assessment. The Applicant understands the WildWings have carried out further surveys but none of that data has been seen by the Applicant yet. With the known colony at [dinosaur park,] the scheme is at the periphery of this core zone. Therefore, our data of the bats in the vicinity of the site is sufficiently robust to determine impact on the bats. There is a likelihood that bats would use the Wensum Valley Corridor rather than crossing the farmland to use the A47. The Applicant believes that the data is sufficiently robust for us to have a good understanding of the bat assemblages which are in the vicinity of the site.</p> <p>The Applicant will ensure that the data is updated to ensure that the Applicant has the most up to date baseline with respect to crossing points. The data from 2022 will be a very good dataset to base that on and also to base the scope of the monitoring service.</p> <p>The Applicant has assessed the zone of influence of the scheme and has reviewed extensive survey data within the boundaries of our scheme that was carried out in both 2017 and 2019 and also further crossing point surveys carried out in 2020. The location of bat roosts outside of the zone of influence for scheme would be outside of the distance proposals influencing zone of the scheme. The Applicant has looked at records of bats and the presence of bats within 10 kilometres of the scheme.</p>	
<b>Agenda Item 5: Climate Change</b>			
1	<p>The Examiner asked the Applicant to outline their assessment</p>	<p>In terms of design and construction, this is discussed in Chapter 14, section 14.9 of the ES <b>APP-053</b>. The Applicant highlights a number of options and what can be done to minimise impact. The Applicant continues to work with options and value engineering. In July 2021 the</p>	<p>The Applicant has no further submissions to make.</p>

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	<p>approach and proposed mitigation measures</p>	<p>Applicant published its roadmap to achieving net zero greenhouse gas (GHG) emissions for the strategic road network by 2050, in line with the net zero target of the UK. Measures set out in the roadmap will contribute to mitigation of GHG emissions associated with tailpipe or end user emissions once the scheme is in operation.</p>	
2	<p>The Examiner asked the Applicant to clarify how the Scheme performs against the targets and the policy.</p>	<p>The Applicant stated that the Scheme should be assessed against the National Networks National Policy Statement 2014, which confirms that assessments should be at a national level and assessed against the carbon budgets.</p> <p>The Applicant stated that the Scheme should be assessed against the National Networks National Policy Statement 2014, which confirms that assessments should be at a national level and assessed against the carbon budgets.</p> <p>At present, this gives targets up to 2037 with the sixth carbon budget. The Applicant has assessed against the fourth, fifth and sixth carbon budgets.</p> <p>This is outlined in table 14-10 of ES Chapter 14 <b>APP-053</b> and shows how the scheme compares to each of those four carbon budgets.</p> <p>The assessment was also done over a 60 year period to take things to 2087. However, there is currently not a set target against which to assess</p>	<p>The Applicant has no further submissions to make.</p>
3	<p>Mair Bain asked the Applicant to confirm whether the scheme will be assessed</p>	<p>The circumstances in which the Secretary of State is required to apply National Policy Statements is set out in section 104 of the Planning Act 2008.</p> <p>The Applicant to submit a written statement on the legal approach to determination and that the only targets Parliament has mandated for the</p>	<p>Please see Annex D.</p>

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	<p>against road schemes and transport targets.</p>	<p>assessing the significance of carbon emissions from national network projects is against the carbon budgets, and not against any other targets. The Scheme has been assessed against the carbon budgets and in accordance with DMRB LA 114.</p> <p>The Applicant will also refer in its written statement to the Climate Change Committee's Independent Analysis of the Government's Net Zero Strategy was published on 26<sup>th</sup> October, (the day that Dr. Bosworth completed his submission on the Derby Junctions case). The overall assessment of the independent analysis undertaken was that net zero strategy, including that the transport decarbonisation plan within that, was it was an ambitious and comprehensive strategy that marks a significant step forward for UK climate policy setting a globally leading benchmark to take to COP 26.</p> <p>The Climate Change Committee recognised that further steps will need to follow quickly to implement the policies and proposals mapped out in the net zero strategy if it is to be a success. The Transport Decarbonisation Plan sets out a number of measures and the road to net zero that the Applicant published in July, this year fits with the transport decarbonisation plan.</p> <p>Dr Boswell did not attend the hearing and the Applicant agreed to set out the legal and required approach in written submissions.</p>	
4	<p>To consider the cumulative effects with other projects. There are three other A47 schemes currently in the process.</p>	<p>The Applicant's very firm position is that the environmental statement is not legally defective. There is no requirement for an assessment of the significance of carbon emissions in the context of any other carbon level assessments other than the carbon budgets. Carbon budgets cover economic sectors within the UK, with the sixth carbon budget also including some of the additional transport sectors that carbon budgets four and five didn't. The Applicant stated that it is hard to see how there</p>	<p>In respect of the EIA Regulations please refer to Annex D. In respect of cumulative assessment in the traffic model, ES Chapter 14, APP-053 Table 14-10 is the change in emissions (DS-DM) for the affected road network. This is not just emissions from the Proposed Scheme, but changes across the</p>

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		<p>would be any other meaningful way of undertaking an assessment that would give rise to any outcome that was material in the decision-making process.</p> <p>The Applicant has reviewed Dr Boswell's submissions on the EIA Regulations, and the Applicant does not accept that his understanding and analysis is the correct application of the EIA Regulations. The EIA Regulations do not require government to determine significance by reference to specific levels, whether local, regional or national, those are matters for Government to determine and the Government, as approved by Parliament in the NPS, has determined that the effects of national network infrastructure shall be determined in the context of carbon budgets. This is the approach that the Applicant has taken and DMRB LA 114 requires us to. The EIA Regulations do not place any obligation on the Secretary of State to require or to find that the environmental assessment is defective because other levels of assessment of carbon emissions have not been undertaken.</p> <p>The Applicant then set out an explanation of the methodology of the cumulative assessment that has been done. In line with LA 104, the environmental assessment and monitoring includes a series of definitions and requirements relating to a cumulative assessment that have been put into this. In the Climate Chapter 14 <b>REP3-014</b> and DMRB LA 104 the expectation that environmental assessments shall assess the cumulative effects is in two ways: firstly, on a single project, for example, the numerous different effects of the impact on a single receiver, and secondly, different projects together with the project that is being assessed. This is how the Applicant has set out its methodology and approach.</p> <p>With regards to the first point there with regards to cumulative impacts on a single project, this has been looked at a through the carbon</p>	<p>whole network as a result of the scheme. Therefore, this is showing the total (cumulative) change in a broader area than just the proposed scheme; but highlighting the difference to the ARN that is contributable to the Proposed Scheme. The project emissions from this cumulative assessment are then assessed for likely significance of effects in terms of the carbon budgets, inc accordance with the NNNPS and DMRB LA 114.</p>

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		<p>emissions within the spatial boundary of the receptor. This is to be looked at on a national level, but as a single project, the cumulative assessment is inherent within the LA 114 climate methodology as it considers those emissions from construction use and end user emissions. And then secondly, in terms of a cumulative assessment with other schemes in the area, you mentioned the other A47 schemes and had previously we've been talking about the Norwich Western Link as well.</p> <p>These projects, together with the proposed scheme here have been assessed, through inclusion in the traffic models and the end user carbon assessment.</p>	
5	<p>To consider the implications of the High Court Judgment in the case of R (on the application of Transport Action Network) v Secretary of State for Transport [2021] EWHC 2095 (Admin).</p>	<p>This case is not specifically to do with the determination of applications for DCO projects, it was an application for judicial review into the road investment strategy (RIS) decision of the Secretary of State's on the 11<sup>th</sup> March 2020, pursuant to section 31 of the Infrastructure Act 2015. The first time that this case actually came up in one of the other A47 schemes (Blofield) when it was raised by Dr. Boswell in the Blofield application prior to the time that the judgement came out. Dr Boswell thought that had the application for judicial review being allowed that the case would have implications for the DCO project, but the application for judicial review was refused.</p> <p>Because the point was raised in his written submissions, the Applicant then responded to those representations, with the benefit of the judgment, and set out extracts from the judgment that confirmed points made in the Applicant's case, for example regarding the role of the carbon budgets and confirm the status of the NPS.</p> <p>Dr Boswell doesn't refer to the case in relation to this Scheme other than to note that there is an appeal against the refusal of full permission</p>	<p>As noted at ISH2, it is not necessary to undertake a detailed evaluation of the judgment. The following two paragraphs are of note because they make it clear that no cumulative targets for the road transport sector (or any other sector) exist and so such a cumulative assessment against targets at a level lower than the national one is not possible on the basis of current knowledge:</p> <p>“127. RIS 2 was not the first document of its kind. It followed on from RIS 1 adopted in December 2014. It was formulated so as to provide continuity, where appropriate, with that earlier document. In setting RIS 2, the SST must be treated as having had knowledge of RIS 1, the NPS and the policy</p>



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		<p>for judicial review. The Applicant will cover this in written representations. But it's not a case that the Applicant is seeking to rely on in persuading the ExA that there are any matters relevant of direct importance that are not already covered under the Planning Act or the NNNPS.</p>	<p>documents referred to in [53 to 54] and [82 to 92] above. He must also be taken to have known about the framework of, and relevant targets in, the <a href="#">CCA 2008</a> (i.e. the net zero target in 2050 and CB4 and CB5). He must have been aware of the challenges facing the road transport sector regarding climate change, the 16 MtCO<sub>2</sub>e difference between the department's central projection and the 2032 Clean Growth Strategy, the matters not taken into account by the central projection (see [89] and [91] above), and the policy commitment to reduce GHG emissions in the transport sector overall "further, faster." <b>The SST must also have been aware that there is no sectoral target for transport, or any other sector, and that emissions in one sector, or in part of one sector, may be balanced against better performance in others. A net increase in emissions from a particular policy or project is managed within the government's overall strategy for meeting carbon budgets and the net zero target as part of "an economy-wide transition"</b> (see Dr Moran's WS at para.32; Packham at [85]- [87]; and [86] above)." (emphasis added)</p> <p>"129. The SST will also have been aware of</p>



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			<p>the approach taken in the NPS and RIS 1 to increases in carbon emissions from new projects for the SRN. The policy in paragraph 3.8 of the NPS states that the impact of road development on aggregate levels of emissions is "likely to be very small." These impacts "need to be seen against significant projected reductions in carbon emissions... as a result of current and future policies to meet the government's legally binding carbon budgets .....". The programme envisaged in "Investing in Britain's Future" would add well below 0.1% of average annual carbon emissions allowed in CB4. Two points should be noted. <b>First, the policy approved by Parliament considers it appropriate to compare the emissions from a roads programme with the UK as a whole, rather than a smaller sector. Second, the percentage given is an indicator of what may be considered as "very small" and not a matter of concern in terms of the UK's climate change policy.</b>" (emphasis added)</p> <p>The Applicant understands that an application for permission to appeal the High Court judgment has been made but that the Court of Appeal has not yet decided whether permission to appeal should be granted. Under current Court timetables, the</p>

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			<p>application for permission is unlikely to be heard until early 2022 and if permission to appeal is granted, any subsequent hearing is unlikely to be held before the end of the examination period. The judgment of High Court therefore remains the legal view of the Court at this time and it would be inappropriate to consider further what view the Court of Appeal might take on the application for permission to appeal.</p>
6	<p>Benefit cost ratios. Has the Applicant updated the benefit costs ratios to include recent policy updates on carbon. These updates are the HM treasury Greenbook valuation of energy use and greenhouse gas supplementary guidance. Published in October 2021. In addition, the evaluation of greenhouse gas emissions for policy appraisal evaluation, was published in September 2021,</p>	<p>The Applicant to respond in writing.</p>	<p>The updated valuation of greenhouse gas emissions for policy appraisal and evaluation published by BEIS on 2 September 2021 and, in due course, its incorporation in the Transport Analysis Guidance (TAG) data book, has no effect on the carbon assessment undertaken in ES Chapter 14.</p> <p>The assessment of end-user greenhouse gas (GHG) emissions set out in ES Chapter 14 (<b>APP-053</b>) assesses the change in end-user emissions, quantifying the change between 'do something' tCO<sub>2</sub>e and 'do minimum' tCO<sub>2</sub>e. tCO<sub>2</sub>e (tonnes per carbon dioxide equivalent) is the standard unit for calculating greenhouse gas (GHG) emissions, enabling emissions of different GHG gases to be presented in in terms of a standard unit once a conversion factor has been applied to each</p>

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			<p>of the different gases.</p> <p>The Case for the Scheme (<b>Doc Ref</b>) includes at section 5.3 the economic assessment results for the Scheme in which the benefits and disbenefits of the Scheme are monetised. The monetary value that society places on one tonne of carbon dioxide equivalent (£/tCO<sub>2</sub>e) is calculated using the TAG Data Book, which applies the carbon values that are published by BEIS.</p> <p>The Applicant has undertaken the economic assessment for the Scheme in accordance with current guidance, which included a sensitivity test containing a set of high sensitivity carbon values based on the July 2020 interim guidance.</p> <p>The Applicant is aware that updated carbon values published by the Department for Business, Energy and Industrial Strategy (BEIS) on 2nd September have now been incorporated into TAG. DfT is looking forward to releasing an updated version of the TAG Databook (v1.17) in November 2021:</p> <p><i>"This Forthcoming Change sets out updates to the TAG Data book and Units A1.2 (Scheme Costs) and A5.3 (Rail Appraisal). These updates reflect the latest evidence on fuel and electricity prices, emissions factors</i></p>

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			<p><i>and economic and demographic data, as well as clarifying the application of Quantified Risk Assessments (Q R As) and Optimism Bias (O B) in scheme appraisal. To reflect the updated appraisal values, an updated version of TUBA will be made available in due course (date to be confirmed)".</i></p>
7	<p>Mr [Caudron] would like to understand why 750 acres of land which is going to be taken out for the works and temporary works. This is not taken into account in the carbon budgets. Why is this the case?</p>	<p>The Applicant stated that with the planning and landscape design, which had not been carried out at stage 3, that was not something that was in the carbon assessment at the time. The Applicant is to provide a response in writing.</p>	<p>The carbon assessment in Chapter 14 (REP3-014) has looked at the emissions associated with construction, operation and use of the Proposed Scheme. Appendix 14.1 (APP-131) provides a detailed breakdown of the embodied carbon assessment for the construction and operation of the Proposed Scheme.</p> <p>The EIA Scoping Report (APP-135) Climate Chapter (Section 14.7.1) states “embodied carbon emissions from the use of construction materials are the main contributor to climate change, with additional carbon emissions arising from the transportation of these materials and the use of construction plant”. It is not anticipated that land use change would significantly change this assessment.</p> <p>Within this assessment, site clearance has been quantified, along with earthworks and</p>

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			<p>drainage within the HE Carbon Tool (v2.3) under fuel consumption.</p> <p>As well as reporting estimated emissions associated with the proposed scheme, Chapter 14 - Climate (REP3-014) Section 14.9 highlights carbon mitigation opportunities taken forward during design and further opportunities to reduce emissions during construction. Mitigation measures are also put forward to address impacts on biodiversity, including the planting of woodland and hedgerows, in Chapter 8 – Biodiversity (APP-047).</p>
<b>Agenda Item 6: Heritage</b>			
1	The Examiner asked the Applicant to outline their approach in relation to heritage matters, including archaeology	<p>The Applicant stated that the Applicant their general methodology approach is split into two sections:</p> <p>(a) relevant legislation and assessment process as detailed in Chapter 6 of the ES <b>REP3-012</b></p> <p>(b) other guidance which the Applicant looked at as detailed in ES Appendix 6.1 (<b>REP 3-124</b> and <b>APP-054</b>). The Applicant looked at Chartered Institute for Archaeology and Historic England's guidance such as conservation principles, the Secretary of State's non-statutory criteria for selection of listed buildings and scheduling of ancient monuments.</p>	The Applicant has no further submissions to make.

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		<p>In terms of archaeology, the Applicant looked at the Norfolk archaeological guide for development led archaeology, which was used in the development of all the written schemes investigation.</p> <p>The Applicant carried out walkover surveys in May 2020. The results of those surveys have been agreed with John Percival at Norfolk, County Council Environmental Services, which is the shared archaeological advisory service for all local authorities in the area. The Applicant and the Norfolk County Council has agreed that it is sufficient to inform the development of a WSI for mitigation works, as is outlined in the proposals in the environment statement and in the environment management plan.</p>	
2	<p>The Examiner asked the Applicant to consider the impact of the Proposed Development upon identified designated heritage assets and in particular to consider the submissions of the owners of Berry Hall Estate;</p>	<p>The Applicant explained there is a distinction between impact and effects. All impact is a potential and what is left is the residual effect which is the important thing.</p> <p>Residual effect on the following assets were considered:</p> <ul style="list-style-type: none"> <li>- St Andrews Church – this can be read in full in Chapter 6. The Applicant developed the scheme as far as we practicable and as agreed in statement of common ground with Historic England.</li> <li>- St Peters Church – the beneficial effects have been agreed with Historic England in the statement of common ground. Believe we have committed in our previous representations those things that are currently slightly unknown in terms of the precise design of the overbridge.</li> <li>- Church Farm – there is a change, to the assessment in the ES . This is presented in the addendum largely down to not removing the wall around it. The effect on the whole is set out as the effect of the setting in the chapter. The applicant clarified that there was no change in</li> </ul>	<p>The Applicant has no further submissions to make.</p>

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		<p>residual effect but that the character of the impact had changed enough to warrant additional description.</p> <p>In order to assess the effect on the setting of Berry Hall, the Applicant assumed that the curtilage is part of the listing. The effect on all relevant aspects of the Berry Hall listing is set out as the effect on the setting of the listing as a whole. Where an asset is made up of multiple elements, only those elements which are relevant to the scheme are included and they are included in the most appropriate manner for the secretary of state to be informed.</p> <p>The Applicant clarified their review of the information made available by the Mr Meynell and considered whether there was something about the land around Berry Hall that is distinct in its value from its value as the setting of the listing. The Applicant did not think there is anything distinct about the land around Berry Hall. The value of the land around it is very limited and if the buildings around it were taken away in a way that they had never been there then there would be very little to go on to say that this is some sort of distinct design in the landscape which warrants its separate treatment. The effect on the land alone is assessed as part of the historic landscape types that it is made up of.</p>	
3	<p>The Examiner asked Norfolk County Council to comment on whether there has been agreement between the Council and the Applicant</p>	<p>John Percival from Norfolk stated that they concur with the Applicant.</p> <p>There has been a range of surveys, database assessment, walkover survey, geophysical survey and the Council is happy with the results of these. The Council and the Applicant has agreed some broad terms of further mitigation and are producing an outline WSI.</p>	<p>The Applicant has no further submissions to make.</p>

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		In relation to designated heritage assets and Berry Hall, the Council has no comments as it relates to listed building and it is the conservation officer at Breckland Council who can primarily comment on that.	
4	The Examiner asked the Applicant whether there was a Statement of Common Ground with Historic England.	The Applicant stated that the Statement of Common Ground is at <b>REP1-009</b> . The Statements of Common Ground with all of the authorities are at various stages.	The Applicant has no further submissions to make.
5	The Examiner asked the Applicant to explain the methodology used in relation to the assessment at Berry Hall specifically.	The Applicant's submissions are contained at Annex C of this document.	The Applicant has no further submissions to make.
6	Rebecca Clutten (for Mr Meynell) stated that she was surprised about the amount of new information and asked for the values to be included in a written statement.	The Applicant stated that a written statement can be provided and stressed that this is not new information and an expansion of what was asked on the methodology.	See the Applicants submission of its oral case at the ISH2 at Annex C
7	The Examiner asked the Applicant to consider the Proposed Development against	The Applicant stated that it is difficult when you have three categories of harm and no established methods or guidance of equating EIA/DMRB terms to these categories.	The Applicant has no further submissions to make.



Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
	<p>the guidance contained within The Historic Environment section of Chapter 5 of the National Policy Statement for National Networks with regard to St. Andrew's church in particular and the EXA written questions 9.020 in EP 2014 with regards to substantial harm and less than substantial harm.</p> <p>St. Andrew's church, was identified as being substantial harm, however, Historic England in their response (at EP 1-030) state that it is less than substantial harm.</p>	<p>The Applicant stated that it is the responsibility of the decision makers to establish the harm. It is a matter of judging the precise nuance of things rather than crudely mapping across significant effect in EIA terms across those categories of harm. The level of harm is for Historic England's judgement but the decision will ultimately be taken by the Secretary of State.</p>	
<b>Agenda Item 7: Population and Health</b>			
1	<p>The Examiner asked the Applicant to explain and justify their approach with regards</p>	<p>The Applicant confirmed that a WCH assessment was undertaken in line with DMRB standards.</p> <p>As part of this assessment the Applicant considered existing facilities in the local area, the views of active travel and PROW officers at the</p>	<p>The Applicant has no further submissions to make.</p>

Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
	<p>to walking/cycling/horse riding (WCH) provision;</p>	<p>County Council, and the feedback from various consultations. Site visits were also undertaken and a series of surveys were commissioned to record the usage of key locations.</p> <p>Considering the locations of villages and amenities a WCH strategy was identified that would not just mitigate the impacts of the Scheme but also allow for opportunities to enhance the networks in the area. The strategy was then refined through consultation with stakeholders and liaison groups. It can be found in summary in the Case for the Scheme <b>APP-140</b>.</p> <p>In essence, the Scheme will provide a continuous east-west route through the corridor, making use of existing facilities, existing local roads, new cycle track facilities, shared use facilities. The Scheme will also provide separated crossing facilities at locations where there are currently only at-grade facilities which are not suitable for current volumes of traffic.</p> <p>With examples such as the Ringland Lane/Dog Lane crossing in mind, the Applicant also considered opportunities to prevent severance where possible in the Scheme. In view of this the Scheme will introduce four sets of separated crossing facilities to facilitate north-south movement.</p> <p>The Applicant further knowledge that one shared use facility would be lost to the Scheme but that a direct replacement would be provided.</p> <p>The Applicant also added that the Scheme would provide in excess of 6 kilometres of shared use cycle track and byway. There will also be over a kilometre of new restricted byway as well as the upgrade of approximately 300 metres of existing footway/bridleway to facilitate its use for cyclists.</p>	

Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
2	The Examiner asked the Applicant to consider whether the Proposed Development would provide an enhancement to existing provision	<p>The Examiner considered that much of this was covered in the above but invited any additional submission.</p> <p>The Applicant added that the proposed Scheme would be introducing four segregated crossing points. The current road only has one crossing point at Easton, which does not conform to current standards, and therefore the Scheme's proposals represent a significant enhancement.</p>	The Applicant has no further submissions to make.
3	Rebecca Clutten (for Mr Meynell) raised the point that the proposals for cyclists were convoluted for those wishing to travel west from south of Berry's Lane, referencing her client's proposed alternative design as a preferable option which involved less need for the removal of trees amongst other benefits	<p>The Applicant advised that the appraisal they had provided on the alternative proposal from Mr Meynell had been based on the highway design elements only. The Applicant would be happy to return in writing with an appraisal of the differences between the two parties' WCH proposals.</p> <p>The Applicant also wished to clarify that it did not intend to remove trees by Merrywood House. There is an error in the arboriculture report and this will be corrected and resubmitted. The tenants of Merrywood house have been made aware</p>	The Applicant will provide an update with an appraisal of the differences between the two parties' WCH proposals as part of the updated 'Alternative Wood Lane Junction - Options Appraisal' report, expected to be issued at Deadline 6.
<b>Agenda Item 8: Landscape and visual effect</b>			
1	The ExA will ask the applicant to outline their approach in relation to landscape matters and to clarify the mitigation	The Applicant advised that a Visual Impact Assessment was undertaken that can be found in Environmental Statement Chapter 7 - Landscape and Visual Effects <b>APP-046 (Chapter 7)</b> . The Applicant also advised that Environmental Statement Appendices Appendix 7.3 - Landscape Character Areas <b>APP-091</b> and Environmental Statement	The Applicant has no further submissions to make.

Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
	<p>proposed and how it is to be delivered;</p>	<p>Appendices Appendix 7.4 - Visual Receptors <b>APP-092</b> are crucial to the detail of the assessment provided in Chapter 7.</p> <p>The assessment followed best practice guidance and was in line with DRMB assessment standards, specifically LA107. The third edition guidelines for undertaking such an assessment produced by the Landscape Institute formed the basis of the methodology. Desk based studies and site surveys were also carried out. Site surveys were carried out from publicly accessible locations and no notable limitations to the LVIA were identified due to that standard approach.</p> <p>In relation to consultation, the Applicant deemed that it engaged fully with host authorities in relation to the viewpoint locations.</p> <p>The Applicant flagged section 7.10 of Chapter 7 as being important to the understanding of the approach to mitigating landscape and visual effects of the scheme. Prior to the consideration of mitigation, assessment findings of note included: LCA A5: Upper Tud; and LCA D2: Weston Green Tributary Farmland. Significant visual effects were also identified on some residential and recreational representative receptors in proximity to the proposed scheme.</p> <p>The Applicant added that though landscape character forms the backbone of the landscape assessment, however the assessment of each scheme is approached differently. In this instance it was considered that the published local character assessments by the host authorities were of sufficient detail that they provided the basis upon which effects of the scheme could be assessed. Specific examples include Breckland LCA A5 and Broadland LCA D2.</p> <p>Landscaping visual mitigation was developed in response to the findings of the assessment and in conjunction with the design team and other environmental consultants. As a result there are components of</p>	

Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
		<p>embedded landscaping visual mitigation within the scheme design. Such examples are set out in para. 7.93 of Chapter 7, which identifies that the design sought to minimise direct impact on trees and woodlands.</p> <p>An Environmental Masterplan <b>REP3-016</b> was produced by the landscape team to combine all environmental mitigation. This primarily comprised landscape visual, ecological, acoustic and hydrological inputs amongst others.</p> <p>The Applicant drew attention to section 7.94 of Chapter 7 which outlines what the mitigation aims to achieve.</p> <p>Following the establishment of proposed environmental mitigation, it is assessed by the Applicant that there would be no significant landscape effects at year 15 post-opening of the proposed scheme. There would be a slight residual adverse overall effect on landscape character and a small number of identified residual significant visual effects. However, best efforts have been made to mitigate those effects as far as is reasonably possible.</p> <p>Regarding delivery, the formal delivery of the mitigation proposed, and all the mitigation commitments are recorded in the Record of Environmental Actions and Commitments (<b>REAC</b>) which is table 3.1 in the Environment Management Plan <b>APP-143</b>.</p> <p>Furthermore, a Landscape and Ecological Management Plan (<b>LEMP</b>) will also be produced by the appointed landscape architects, the applicant, and ecologist prior to construction. The LEMP will describe the proposed management and monitoring of the landscape and ecological mitigation and compensation features of the scheme.</p>	

Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
2	To consider the effect of the Proposed Development upon existing trees and hedgerows	<p>The Applicant made reference to Environmental Statement Appendices Appendix 7.6 - Arboricultural Impact Assessment <b>APP-094</b> and to RR-037.21 from the Applicant's Response to the Relevant Representations <b>REP1-013</b>. Through the Assessment and the response to the relevant representation the Applicant outlined their approach as to how this would be carried out.</p> <p>An action in the REAC also requires a principal contractor to engage with the Applicant's arboriculture consultants to complete an Arboriculture Method Statement.</p>	The Applicant has no further submissions to make.
3	In their Local Impact Report and in relation to the removal of trees, Norfolk County Council stated in their assessment of stem diameters that there may be some veteran trees; does the Applicant have any comments?	<p>The Applicant advised that it would defer to the Statement of Common Ground and respond in more detail in writing. The Applicant also pointed out that the Environmental Statement Appendices Appendix 7.6 - Arboricultural Impact Assessment <b>APP-094</b> identified no veteran trees.</p> <p>The Applicant also drew attention to section 6 of the Scheme Design Report <b>AS-009</b> and to their responses to sections 10.05 and 10.06 of Deadline 2 Submission - 9.6 Applicant's Response to the Examining Authority's First Written Questions <b>REP2-014</b>.</p>	The Applicant has no further submissions to make.
4	<b>Rebecca Clutten for Mr MEYNELL</b> – raised queries about potential errors in the Applicant's Arboricultural Impact Assessment <b>APP-094</b> ; plan 4/7 has wrongly	The Applicant confirmed that they are aware of some errors in the Environmental Statement Appendices Appendix 7.6 - Arboricultural Impact Assessment <b>APP-094</b> and that they are attending to a revision of that. The Applicant said that they will pick up the points on the coordination between the plans and the tables and correct the referencing. Within the sheets referenced, however, the Applicant	The Applicant has no further submissions to make.

Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
	<p>marked areas G158, G189, and G167 as trees not hedgerows; crosshatching indicating partial removal also incorrect; concerns that potentially 850m of hedgerow have been omitted from the assessment; concerns that a beech tree has been omitted as well as further hedgerow</p>	<p>pointed out that hatching refers to groups and hedgerows to be removed, as stated in the key.</p> <p>The Applicant directed the Examiner to the Environmental Masterplan <b>REP3-016</b> which demonstrates existing vegetation to be retained on Berrys Lane on its plans.</p> <p>In relation to missing hedgerows on the drawings, the Applicant concedes this error but assured that it was not its intention to construct footpath in a way that would involve removal of these hedgerows.</p>	
5	<p><b>Rebecca Clutten for Mr MEYNELL</b> – raised concerns surrounding the impact of the scheme on identified receptors; in relation to P12, the assessment is inaccurate as it is expected that a visual impact will occur, with compounds visible; made the case that the estate should have been identified as a receptor and assessed</p>	<p>In relation to the concerns on the identified receptor P12, with reference to receptors FP3 and FP4, the Applicant assured that any compounds would be suitably screened and the material storage area would provide this screen. This can be pointed out come the ASI.</p> <p>In relation to the concerns that the estate had not been properly assess as a receptor, the Applicant opened by expressing a concern that the lines between heritage and landscape should not be blurred and made reference to its previous statements in relation to heritage.</p> <p>From a landscape perspective, the Applicant pointed out that it had addressed this point previously in the Applicant's Response to the Relevant Representations <b>REP1-013</b> in response to RR-061.2, RR-061.6, and RR-061.7. The Applicant expressed in these responses that the Applicant had reviewed the estate's designation and the Heritage Management Plan and concluded that the ultimate conclusions reached</p>	<p>The Applicant has no further submissions to make.</p>



Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
	<p>accordingly and made reference to the estate's inheritance tax designation</p>	<p>in Route Option Studies, 6.1 Environmental Statement Chapter 6 – Cultural Heritage <b>REP3-012</b>, and Environmental Statement Chapter 7 - Landscape and Visual Effects <b>APP-046</b>.</p> <p>In respect to the Landscape Character Assessment the Applicant referenced Environmental Statement Appendices Appendix 7.3 - Landscape Character Areas <b>APP-091</b> and paragraph 1.3.5 – here local value was identified and concluded that the overall LCA, which includes the estate, is of medium landscape value with a significant impact identified at Construction and Year 1 (pre-mitigation) stages. The Applicant is clear that landscape value was therefore considered fully in the LVIA. The Applicant advised that the Berry's Hall estate is not referenced in the published landscape character assessment (Breckland Council). The also made the point that due regard was given to all land within the DCO boundary, including Berry's Hall Estate, when developing the Environmental Masterplan.</p> <p>In relation to the point made on inheritance tax designation, the Applicant asserted that though Natural England did award a tax designation, a tax designation is not a planning designation. In relation to this Scheme currently, Natural England have expressed no concerns, as one might expect on a scheme of such national importance. The local authorities have similarly raised no concerns in light of the tax designation. Further to this the Examination has no detail as to the 2011 Natural England Assessment and no detail as to the specialism of its author. Finally, the tax designation document is not publicly available and certainly does not show up in a normal search in planning terms.</p> <p>The Applicant went on to advise that it recognised that it could be a relevant consideration and made reference to the explanation it had made, at length, of the assessments made of the Berry Hall estate.</p>	



Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
6	<p><b>Charles Birch for Honingham Aktieselskab (HA)</b> – raised concerns that, though positive discussions had been taking place, they were concerned about the impacts on certain receptors and the Applicant's stance on the extent of the mitigation it could offer in relation to their client's land, as well as issues with plans and drawings that make it hard to understand the reality of the mitigation proposals; points were also made in relation to the comparison of one and fifteen year results</p>	<p>The Applicant echoed that positive discussions were taking place.</p> <p>The Applicant recognised that the plans and drawings issued in HA's submissions referenced between REP3-029 and REP3-034 were at an exaggerated scale and skewed. The Applicant has, as requested, provided a series of cross-sections, delivered at natural scale. Because of the receptors identified and the distances involved it is very difficult to demonstrate graphically without splitting up sections. The Applicant committed to sending over the cross-sections digitally so that the party's experts may convert into a form they prefer.</p> <p>The Applicant advised that the assessments made are from the year 1 and year 15 viewpoint. The Applicant has to take into account the assessment methodology for the provision of mitigation measures.</p> <p>In relation to the screening around a specific detention basin, the Applicant advised that as the Scheme approaches the River Tud it has to rise to achieve the relevant clearance. The basin is situated down on the ground as it slopes down towards the river, to provide a screening bund would require a structure of significant height and a complex structural solution. This is not something required by the mitigation proposed within the Environmental Statement and therefore the Applicant's position is that if the landowner wishes to provide something that would be of their own means in that location.</p> <p>The Applicant added that it stands by its assessment of Receptor R31 in Environmental Statement Appendices Appendix 7.4 - Visual Receptors <b>APP-092</b>. As with the mitigation which the Applicant has proposed, significant consideration has been given and proposal has been presented on Sheets 9 and 10 of the Environmental Masterplan <b>REP3-016</b>.</p>	<p>The Applicant has no further submissions to make.</p>

Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
		The Applicant asserted that it would continue to engage with the landowner. The Applicant also made reference to responses given in the Applicant's Response to the Written Representations <b>REP3-022</b> , and specifically section 15 and section 2.2.	
7	The Applicant to confirm what cumulative assessment was undertaken as part of the scheme, in particular in relation to the north-western link	The Environmental Statement Chapter 15 – Cumulative Effects Assessment <b>APP-054</b> will be updated. To be dealt with by written submission.	An update to the Chapter to be submitted for Deadline 6.
8	<b>Mr Hawker</b> raised a query asking for more detail in relation as to how mitigation can disguise the impact of this road at viewpoint reference three as found in Environmental Statement Chapter 7 - Landscape and Visual Effects <b>APP-046</b>	<p>The Applicant referred Mr Hawker to the explanation given in the Environmental Statement Appendices Appendix 7.5 - Representative Viewpoints <b>APP-093</b> and Sheets 4 and 5 of the Environmental Masterplan <b>REP3-016</b>. Extensive planting proposed on the southern side of the Scheme, including some thick embankments that would supplement the screening provided there.</p> <p>The Applicant further pointed Mr Hawker to the General Arrangement Plans <b>REP3-002</b> and Sheets 6 and 7 showing a bund for Mr Hawker's interest.</p>	The Applicant has no further submissions to make.
<b>Agenda Item 9: Other Issues</b>			
1	The Examiner wanted to seek clarification with regards to proposed	The Applicant advised that the lighting was required with respect to health and safety regulations but that the lighting would be positioned sympathetically to minimise light spill and disturbance to receptors.	The Applicant has no further submissions to make.

Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
	<p>lighting arrangements and, in particular how the proposal will minimise light spill, protect biodiversity and still deliver necessary lighting to meet highway requirements;</p>	<p>The impacts of lighting and the proposed mitigation measures are assessed in Chapter 7 of the Environmental Statement <b>APP-046</b> and further information was available in Environmental Statement Appendix 7.7 – Lighting Assessment <b>APP-095</b>. Section 7 of that appendix provides a summary of the safety need for artificial lighting on the approach to and through proposed junctions, slip roads, and associated roundabouts along with inductive light layouts.</p> <p>The design of the Scheme's lighting was undertaken in accordance with the relevant DMRB standards. Lighting is provided on the approach to any identified conflict areas for five seconds of driving distance of the expected speed. This is to ensure a good visual guidance path is provided. Regarding light spill, the Applicant has taken this into consideration in the design of the proposed junctions below the A47 mainline, including cuttings to minimise the impact of light spill. The LED luminaires proposed are to be a warm white colour temperature light and they will be shielded with backlight shields to avoid emitting outboard light and impacting habitats. No light will be emitted above the horizontal plane.</p> <p>The Applicant also made reference to the Applicant's Response to the Relevant Representations <b>REP1-013</b>. In responses to REP-017.3, REP-017.3, and REP-055.11 the Applicant responded to concerns around lighting and biodiversity, confirming that they had followed the required guidance relevant to such cases.</p>	
2	<p>The Examiner wanted to clarify the position with regards to temporary noise mitigation during</p>	<p>The Applicant advised that construction noise had been assessed in accordance with DMRB standards. Construction noise constitutes a significant effect where certain duration thresholds are exceeded. The threshold would be 15 days and this was considered by the contractor within the Environment Management Plan <b>APP-143</b>. Within the</p>	<p>The Applicant would like to correct the stated duration threshold to be as follows:</p> <ul style="list-style-type: none"> <li>• 10 or more days (or nights) in any 15 consecutive days (or nights); <u>or</u></li> </ul>

Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
	<p>construction and to justify the duration threshold</p>	<p>Management Plan are commitments relating to construction noise, one of which is for the contractor to develop a Construction Noise Management Plan, providing various means of mitigation to avoid significant environmental effects.</p> <p>The threshold is 15 days in line with guidance for the assessment of construction noise.</p>	<ul style="list-style-type: none"> <li>• a total number of days of exceeding 40 in any 6 consecutive months.</li> </ul> <p>These duration thresholds are defined in Para 3.19 of DMRB LA111: <i>Noise and vibration</i> and are the duration thresholds stated within ES Chapter 11. Under commitment NV1 of the Environmental Management Plan <b>APP-143</b>, the Principal Contractor is required to develop a construction noise management plan to manage potentially significant effects due to construction noise and vibration. Significant effects shall be defined as per ES Chapter 11 and DMRB LA111 and therefore the construction noise management plan will also apply the same duration thresholds.</p> <p>The Applicant has no further submissions to make.</p>

Ref	Questions / Issues Raised at ISH1 and Hearing Action Points	Summary of Applicant's Response at ISH1	Applicant's Written Response
3	<p>The Examiner wanted clarification of working hours for the proposed development.</p>	<p>The Applicant clarified that the working hours would be 07:00 – 19:00. These hours are to be minimised as far as practicable unless works outside these hours are unavoidable. In such a case, the Scheme contractor has to consult with the local authority before carrying out works outside these times, and agree appropriate methods of mitigation that account for the location of the works, hours of work, and the expected duration.</p> <p>This is set out in the Record of Environmental Actions and Commitments (REAC) which is table 3.1 in the Environment Management Plan <b>APP-143</b>. Compliance is also secured within the Draft DCO <b>REP1-003</b>. Outside of this the stakeholders would also keep any relevant interests parties informed of any changes to the working hours.</p>	<p>The Applicant has no further submissions to make.</p>

### **3 ANNEX A**

## Annex A of the Applicants Oral Submissions of ISH2

### A47 – North Tuddenham to Easton Development Consent Order Application

#### Predicted traffic levels in Western Longville:

The Applicant has undertaken traffic modelling scenarios throughout the scheme development to inform decision making and communicate impacts to stakeholders through the various engagement channels.

Along the A47 corridor between North Tuddenham to Easton, there are five routes north providing links between the A47 and A1067 Fakenham Road. Only one route is classified as a “B” Road and forms the Local Highway Authority Heavy Goods Vehicle (HGV) route from the A47 to the A1067 Fakenham Road. There are 3 “C” Roads and one unclassified road:

#### Routes identified West – East:

- Lyng Road (C198)
- Heath Road (C173)
- Wood Lane (B1535) (Local Authority HGV Route)
- Taverham Road (C174)
- Church Lane (unclassified)

Various scenarios were modelled in the strategic highway traffic model and are presented below together with the column heading definitions and a location plan.

#### Scenarios Modelled:

- Base 2015  
A 2015 base year model developed in line with the Department for Transport (DfT) Transport Analysis Guidance (TAG), which demonstrates a good representation of traffic behaviour in the A47 scheme area and Norwich.
- DN  
“Do Nothing” - Natural growth only for the proposed scheme opening year of 2025 (Includes the Norwich Distributor Road (NDR))
- DS0  
“Do Something 0” - Natural Growth to 2025 + A47 Scheme + Norwich Western link Scheme
- DS1  
“Do Something 1” - Natural Growth to 2025 + A47 Scheme + Honingham Lane Closed
- DS2  
“Do Something 2” - Natural Growth to 2025 + A47 Scheme + Honingham Lane Open

#### Notes:

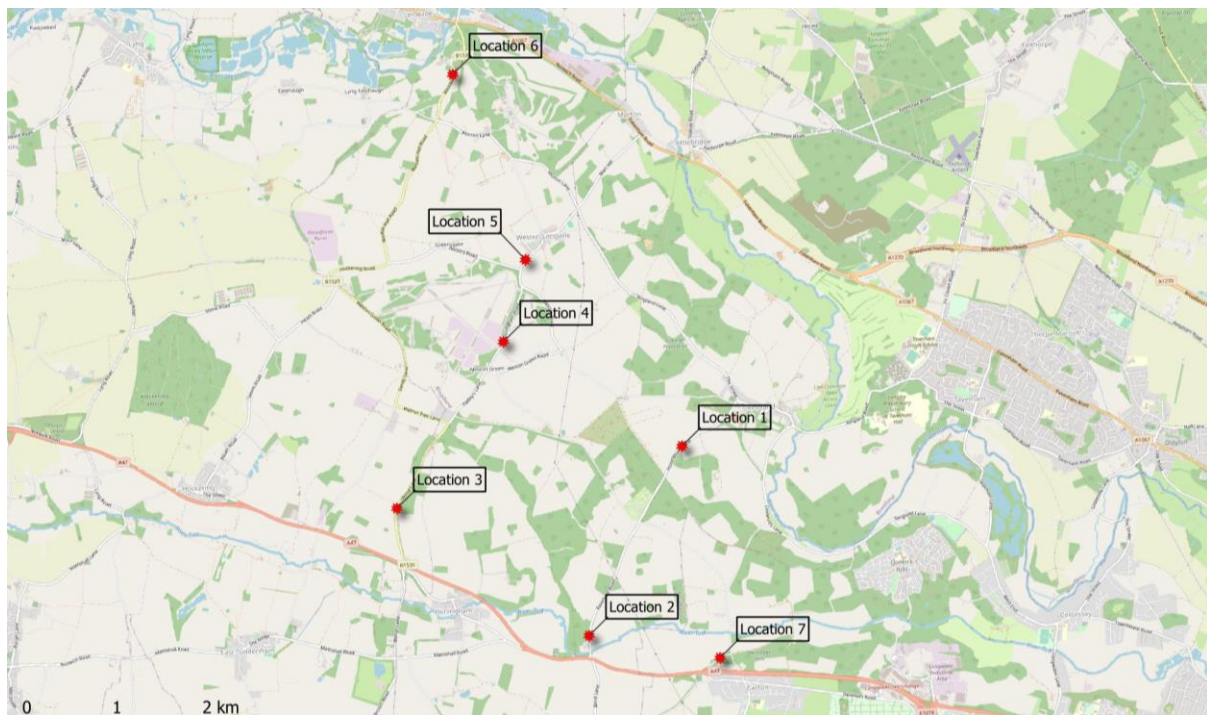
1. Annual Average Daily Traffic (AADT) rounded to the nearest 100 vehicles
2. Base 2015 flows do not account for the Norwich Distributor Road (NDR)
3. The NDR flow impacts are included within the “Do Nothing” scenario

**Scenario / AADT Summary:**

AADT	Base 2015	DN 2025	DS0 2025	DS1 2025	DS2 2025
<b>Network Assumption</b>					
A47 TUD	No	No	Yes	Yes	Yes
NWL	No	No	Yes	No	No
Honingham Lane at Ringland Village	Open	Open	Open	Closed	Open
1: Honingham Lane	600	900	200	0	2600
2: Taverham Rd	600	900	200	1,300	2600
3: Wood Lane	2,500	3,000	2,300	5,400	4,800
4: Honingham Rd at Weston Green (North of Weston Green Rd)	2,300	2,300	0	4,100	3,800
5: Honingham Rd near Weston Longfield (North of Rectory Rd)	2,900	4,300	0	4,100	3,800
6: Weston Hall Rd	3,400	4,100	2,800	3,100	3,200
7: Church Lane	3,900	4,300	-	-	-

\* In the DS0, DS1, DS2 scenarios “-” denotes Church Lane as closed.

**Location Plan:**



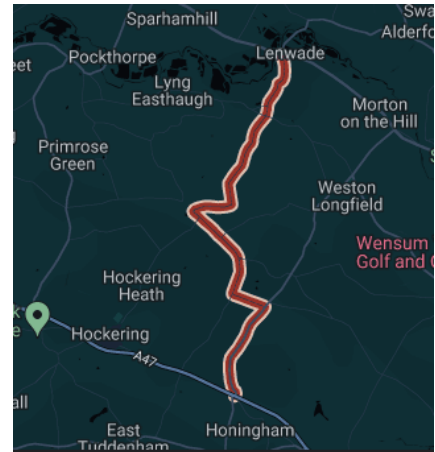


### **Weston Longville Summary:**

The B1535 corridor (see image) links the A47 with the A1067 Fakenham Road and is the Local Highway Authority (Norfolk County Council) HGV route.

The local highway authority operate and maintain this link, which has had various improvements over a period of time.

As a result of this route, Weston Longville experienced an increase in direct through traffic. This has been mitigated by the introduction of traffic mitigation measures through Weston Longville comprising of physical build outs, lane narrowing, speed limits and a width restricted corridor.



The “DN” scenario shows an overall increase in traffic levels from the 2015 Base as a result of the inclusion of the Norwich Distributor Road (NDR) and natural growth.

The DS0 Scenario demonstrates that the strategic traffic is removed from Weston Longville.

In the “DS1” scenario, which contains No NWL and the Church Lane (Easton) closure, there is a reduction in traffic from the “DN” scenario at Location 5 (Weston Longville) of 200 AADT. There is an increase in traffic at Location 4 as a result of the re-routing traffic between the A47 and NDR joining from Rectory Road.

The “DS2” scenario of No NWL and Honingham Lane open also demonstrates a reduction in AADT from 4,300 to 3,800 on Honingham Road at Location 5 in comparison to the DN scenario.

Overall, the model analysis indicates that the scenarios which include the Church Lane (Easton) closure, show there is no increase in traffic through Weston Longville. However, the analysis does demonstrate an increase in traffic at Locations 3 and 4 in the DS1 and DS2 scenarios compared to the “DN” scenario. This is to be expected given the traffic dispersal on the higher quality routes (Location 1 to 3 & Location 6 to 4 to 3).

### **Taverham Road Summary:**

The C174 Taverham Road is a 1.6km local authority road linking the A47 to the junction north with Telegraph Hill / Weston Road / Honingham Lane. Along the route there are nine signed formal passing places and an implemented order prohibiting HGV use through to Taverham; this is signed at the junction of the A47 / Taverham Road (No Access for HGVs to Taverham) and this provision is retained with the Applicants scheme.

The “DN” scenario at Location 2 shows an increase from the 2015 Base, as a result of the inclusion of the NDR and natural growth.

The DS0 Scenario with the A47 and NWL schemes open demonstrates that the strategic traffic is reduced to 200AADT.

In the interim, between the opening of the proposed schemes, we are proposing the introduction of a Temporary Traffic Regulation Order (TTRO) to prohibit through traffic on Honingham Lane. This is modelled in the “DS1” scenario, which contains No NWL and the Church Lane (Easton) closure, which demonstrates there is a slight increase in traffic of 400 AADT.

The “DS2” scenario demonstrates that if Honingham Lane were to remain open without the NWL being operational then the traffic flows would increase from the DN scenario of 900 to 2,600 AADT. This scenario demonstrates the importance of the TTRO mitigation at Honingham Lane from the closure of Church Lane until the opening of the NWL.

Norfolk County Council have also undertaken further modelling of the scenarios and this joint approach was communicated to the Parish Councils via the Local Liaison Group (LLG) on the 23<sup>rd</sup> February 2021 based on the proposed A47 mitigation measures.

The Applicant has continued to engage with the local highway authority during the Examination period and has made further proposals to reduce speed limits on Taverham Road (30mph), Dereham Road (30mph), Wood Lane (50mph), Lyng Road (50mph) which have been accepted by the local authority.

As part of the NWL scheme the remaining length of Taverham Road will also be reduced to 30mph.

## 4 Annex B

## **Annex B of the Applicant's Oral Submissions of ISH2**

### **A47 North Tuddenham to Easton Development Consent Order Application**

#### **Biodiversity Net Gain**

##### **ISH Written Summary**

This written summary has been updated to take account of the coming into force of the Environment Act 2021 on 9 November 2021, although no final version of the Act has been published as at the date of this summary.

The Scheme seeks to maximise biodiversity delivery in accordance with the current statutory and policy requirements. This will be achieved through considered planting to create new or extend landscaping and biodiversity elements, including species rich grassland, hedgerows, trees, woodland and biodiversity wetlands as shown in the Environmental Masterplan, Rev.1 (**AS-007**).

Appendix B.5 of the Environmental Management Plan (**APP-143**) will contain a Landscape and Ecology Management Plan ("LEMP") to be produced by the appointed Landscape Architect and Ecologist prior to construction. The LEMP will describe the proposed management and monitoring, including durations, of the landscape and ecological mitigation and compensation features of the Scheme. The commitment to deliver the LEMP will be secured through DCO Requirement 4 'Environmental Management Plan'.

Overall biodiversity net gain ("BNG") is not considered to be an appropriate metric by which to examine the Scheme. In particular, Defra Metric 2.0 was replaced by 3.0 when the Environment Act came into force, but it remains subject to variation and is expected to be consulted upon in 2022. To satisfy the requirements of Defra Metric 3.0, additional surveys would be necessary. As Defra Metric 3.0 was published on 7 July 2021 and post-dates the ecological surveys carried out to inform the Biodiversity assessment, the scope of these surveys did not extend to capturing and recording the necessary condition information required as input data into the metric. Accordingly, it would not be possible for the Applicant to present a meaningful, accurate and comparable calculation in the absence of this survey information.

For this reason, the Applicant cannot commit to providing overall BNG or indicate the extent of BNG.

Presently, the NPS NN (particularly paras. 5.20 – 36) provides that the Scheme must show that it has taken advantage of opportunities to conserve and enhance biodiversity, and should seek to mitigate any harms. As a last resort, the Scheme must compensate for any harms which cannot be mitigated. There is no requirement, or method of calculation available, within the NPS NN for the calculation of BNG.

The ExA will be aware that the NPS NN is to be reviewed, and that work is expected to be completed by Spring 2023. However, while that review is undertaken, the current NPS NN remains the relevant government policy and has effect for the purposes of the Planning Act 2008 and this Examination.

The NPPF must also be considered as an important and relevant consideration. NPPF Paragraph 174 includes more explicit support for providing BNG as part of development projects than the NPS NN by stating that planning decisions should:

"...contribute to and enhance the local environment by:... minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"

Although the Environment Act 2021 contains provision to give the Government the power to make a BNG statement requiring BNG to be achieved for NSIPs, that BNG statement and any regulations remain subject to consultation. It follows that whilst the Government's intention is to have the ability to make BNG mandatory for NSIPs in the future, those provisions are currently not applicable to NSIP applications.

On that basis, whilst delivering BNG is desirable, there is no requirement for a NSIP such as the Scheme to deliver overall BNG in the NPS NN. This reduces the weight to be applied to policies in the NPPF on BNG as relevant and important matters in decision making on the Application.

However, against this statutory and policy background, the Applicant is nevertheless committed to minimising environmental impacts and protecting and enhancing the quality of the surrounding environment. That accords with the obligation in section 40 of the Natural Environment and Rural Communities Act 2006 to have regard to the purpose of conserving biodiversity. This is written into the terms of the Highways England Licence which binds the Applicant. The guidance section of the Licence indicates that Highways England should, where appropriate, work with others to develop solutions that can provide increased environmental benefits over those that can be delivered alone, where this delivers value for money.

Furthermore, protecting biodiversity is entrenched within the Government's Road Investment Strategy. The RIS1 states that the company must achieve no net loss of biodiversity during the second road period and deliver net gain in the longer term.

## **5 Annex C**

## **Annex C of the Applicants Oral Submissions of ISH2**

### **A47 – North Tuddenham to Easton Development Consent Order Application**

#### **Written submission of the Applicant on Heritage in relation to the Berry Hall Estate**

1. At the Issue Specific Hearing 2 on Friday 5 November 2021 (**ISH2**), the Applicant was asked to consider the impact of the Scheme on designated assets, in particular considering the submissions on Berry Hall. The Applicant's Heritage expert provided commentary at ISH2 and was asked by the Examining Authority to prepare a written summary of submissions, which are set out below.
2. Applicant acknowledged that the minute detail of all aspects of assessment were not listed out in the submitted ES or representations. However, this is entirely appropriate, as the heritage assessor must consider a great many details and report only on those that are immediately relevant to the proposed scheme.
3. Whether a particular parcel of land is added to the assessment as a distinct entity is subject to the judgement of the assessor. As noted in the methodology section of the ES Heritage Chapter, this is guided by DMRB LA106. Of specific note, is that the “study area” is now defined as the footprint of the scheme plus any heritage resource that could be affected. The applicant’s expert made the point that, technically, this could mean starting at the entire observable universe and working inwards. This was not hyperbole. Many pre-historic sites are best understood through an appreciation of astronomical features and understanding this can require knowledge of, not merely the night sky but, the composition of the observable universe sufficient to understand stellar drift and the effect of Hubble expansion, to apply the right context. Admittedly this does not arise very often.
4. This is particularly relevant in the case of non-designated assets and assets made up of multiple elements. Only those which are relevant to the scheme are included and they are included in the most appropriate manner for the Secretary of State to be informed. A theoretical example was given of an archaeological site that may have many individual elements identified from many different types of survey. If the site is not likely to be impacted, it is not necessary to fully report on it. In this theoretical case, it would be included as an indicator of the potential for other, unknown remains of similar character which could be affected. If the site is within the footprint of the scheme, it may become relevant to discuss the nature and relative value of the individual constituent parts in order to properly quantify the magnitude of potential impact.
5. With reference to listed buildings, the Applicant stated that the entire listing, including curtilage, is considered as part of the listed building per the Act. To give context to the submissions made at the ISH and for completeness, the Cultural Heritage Chapter of the ES (REP3-012, section 6.3.2) refers to the Planning (Listed Buildings and Conservation Areas) Act 1990, which has been used in the assessment. Section 1 (5) of the Act defines “listed building” and includes “(a) any object or structure fixed to the building” and “(b) any object or structure within the curtilage of the building which, although not fixed to the building, forms part of the land and has done so since before 1st July 1948”. Therefore in referring to a single listed building, the assessment

refers to the entirety of the listing, including these other features. This may not be apparent in all cases, as the name of the listed building in its listing description is often given in such a way that identifies one specific structure. Whether a listing description does or does not mention a specific feature or structure attached to the named structure or within its curtilage does not affect this part of the Act. In practice, an object or structure would have to be specified as excluded from the listing in the listing description in order to be discounted from the Act. Objects and structures attached or within the curtilage can make greater or lesser contributions to the overall significance of the listing, which does not reduce the value of the listing however, the definition of curtilage can be a very nuanced one and is individual to each listing (Advice Note 10 “Listed Buildings and Curtilage”, Historic England, 2018).

6. What this means in terms of the Berry Hall estate is that the description of the setting of the hall was sufficient to contextualise the likely effects of the scheme. The curtilage of the listing, as well as the character of the land in the estate, with its values deriving from the house, its curtilage and setting, were considered in the assessment of impacts and effects upon the cultural heritage asset “Berry Hall (1306730/MNF51580)”. To describe fully the detail of the thought process behind why the individual structures in the curtilage are not noted in text would not be reasonably practicable, given this would require noting all of these elements in text and would be a change to the general methodology and presentation without justification in the assessed effects. This would have to then be applied to all assets to be consistent and fair, which would reduce the heritage chapter and appendix to a vastly lengthy catalogue of every hedgerow, wall, road, geophysical anomaly, etc. For the sake of scale perspective, the number of small geophysical anomalies which are of no or little relevance (e.g. a dipolar anomaly occupying the space of 2 to 4 survey readings) would number in the hundreds, if not thousands. These would not usually be reported on, even in the specialist survey reports.
7. The historic values of the land which do not derive from the elements above are reported on as part of the historic landscape, given in the chapter and appendix 6.1. The estate is not set apart as a historic landscape asset on its own as the land is, other than that best described in context with the hall etc as above, not of sufficient coherence and character to warrant it. More details are given below on this.
8. The applicant refers to the representations made by the relevant authorities, Historic England (deferred to local authorities REP2-021) and Breckland Council, agreeing with the baseline and assessments of the heritage chapter (REP2-016 Q9.0.4, REP2 -017 Section 6.1)
9. On the note from Mr Meynell’s representatives that there is an inconsistent approach to historic estates, a potential reason for this perception was supposed by the applicant’s expert to be the apparently different treatment of Honingham Park (MNF49020) and Church Farm House and Barn (NHLE1051542 & NHLE1170764), assuming this referred to the previous representations (REP3-044, comment 44). Whether this supposition is true or not is irrelevant as, it is a useful example and so, some details of the thought process were explored. Direct comparisons between assets in the same study area are not part of the assessment process although, comparison to the entire category(s) of asset on international, national, regional and local scales is a basic principle of all heritage assessment (per the standards and guidance set out in the chapter and appendix (APP-085).



10. The park was described in the ES cultural heritage chapter (paragraphs 6.7.20, 6.7.21, 6.7.37, 6.7.38) as containing several features including a boundary wall and fence in the “estate style”, as well as an historic building (the 19<sup>th</sup> century gate lodge). The gate lodge was not assessed separately, as effects upon it were not sufficiently distinct from the other park features as a whole as to be relevant to the Secretary of State's decision. This was brought up by Broadland council (RR-008) and subsequently the approach was agreed (REP2-018 Q9.0.4). The park also contains several other features such as designed/curated vistas, managed wider landscapes, relational views between different parts of the land etc that were not brought up in the ES, as they are not affected and thus not relevant. While the inclusion of the park on the Norfolk Historic Environment Record (HER) was a starting point for assessment, it was not the end point of the thought process. There are elements of the wider landscape (outside of the polygon provided by Norfolk HER, shown on APP-059 Figure 6.2) that are potential indicators of a larger historical extent, perhaps even indicative of medieval or earlier “emparkment”, given the morphology of certain collections of field boundaries, which may warrant further academic study. These are also not reported on, as they would not be affected by the scheme.
11. The effects on Church Farm and its associated barn were separated out, as the heritage values of the buildings are distinct enough from the parkland within which they are located. The effects are also distinct enough in terms of the elements of the proposed scheme affecting the assets and the nature of that effect. For example, the urbanising effect of the proposed scheme was part of the description for both assets but, the presence of the proposed balancing pond was more relevant to Church Farm and the scale of the assets meant that the magnitude of impact was discussed in a different manner (paragraphs 6.8.14, 6.8.16, 6.8.30). It is important to also note here that “distinct” does not mean “separate” and there is a good deal of nuance in the assessment of heritage values past the principle of “it is listed, therefore it is x value”. This brief statement is the sum of all possible and known aspects of value, given the information known at the time of assessment. While it can be possible to read from the assessment methodology contained in the chapter, that “x status = y value”, the methodology (paragraph 6.4.22) states that professional judgement is used and directs the reader to the further information on this contained in appendix 6.1 (APP-085). A complete and exhaustive list of references used in the formulation of this professional judgement is not possible, as it is drawn, not only from current legislation and guidance, but the evolution of those documents over time and the knowledge accumulated from a lifetime of professional experience and education.
12. Cultural heritage contains a vast array of possibilities and it is the role of the heritage expert to sift these down to the most relevant and useful for the Secretary of State. Failure to mention a specific point in text does not mean it has been omitted from thought, only that it is not considered relevant or useful in context. The approach on this other estate is therefore consistent with the methodology set out in DMRB, the other policies and guidance used and the treatment of the Berry Hall estate. Again, a direct comparison is not drawn between the assets and heritage values of all assets in general are not calculated in comparison to each other.
13. The Applicant’s expert then moved on to discuss Berry Hall specifically:
14. The effect on the estate land has been assessed as the most important aspect of the setting of Berry Hall. The inclusion of the estate as a separate cultural heritage asset is not necessary, as the cultural heritage effect is captured in the description of the effect on Berry Hall and the historic landscape type. Since the effect on the estate is identical to the effect on the hall and

has been described and assessed within this context, the assessment is adequate to inform the Secretary of State's decision.

15. If the estate had been included as a separate asset, the assessment text would have read "The effect on the Berry Hall estate is entirely encapsulated in the assessment of effect on the setting of Berry Hall and has been excluded from assessment in order to not double-count the effect".
16. In order to assess whether the new information provided by Mr Meynell at deadline 1 would have changed the existing assessment, an exercise was undertaken to look at what changes could possibly come from the clarified cultural heritage value of the estate. The cultural heritage value of the estate was found to be almost entirely derived from its relationship with the listed buildings, namely:
  - a. the relationship with the historical figure Parson Woodford via Mr du Quesne, the vicar of East Tuddenham parish
  - b. the potential earlier date for the hall
  - c. the financial relationship of the agricultural land to the upkeep of the buildings
  - d. the relationship of the vicarage to the wider parish
  - e. the approach to and framing of views to the Hall from the outside and the curation of views from the hall to the south and east
  - f. Trees providing shade to the ice-house
17. The possible elements of the estate's value that are not connected to the Hall are:
  - a. The age, rarity and coherence of the land use and field boundaries.
  - b. The potential age of the trackways
  - c. Findspots identified in the HER of Roman and post-medieval date (MNF65142 and MNF65143)
18. This is (to the best of the information available) a post-inclosure landscape with modern alterations to land use. Despite the archive references provided in the estate management plan (REP1-048), the precise nature, location and layout of the lands associated with the earlier vicarage and the current Berry Hall are not known with certainty before the 1838 tithe map. Bryant's map of 1826 is not as reliable as the tithe, but is more detailed than the 1797 Faden map (referenced in REP1-048). This map shows that the lawns/meadows east and south of the Hall are largely in the same layout and that there may have been small layout changes to tree-planting, pathways and buildings on the estate between the 1826 and 1838. The apportionments of East Tuddenham and Honingham tithes record that the lands currently owned by the estate to the east of Berry's Lane belonged to a different landowner in 1838 and were not part of the estate. These types of changes are fairly typical for post-inclosure landscapes. The age, rarity and coherence are not especially rare on a national or local scale (shown on ES Figure 6.3 (APP-059) and discussed in section 6.3.19 of the Environmental Statement Appendix 6.1 (APP-085). The Norfolk HER historic landscape characterisation data does not present the estate as a coherent landscape type. Instead, it is divided among areas of Woodland, Inland Managed Wetland, 20th Century Agriculture and 18th-19th Century Enclosure, with the latter three types extending well beyond the estate. The Breckland District Landscape Character Assessment for the Upper Tudd Valley (referenced in the above ES section) makes reference to 'minor parkland associated with the parsonage at Honingham' but this is not a key characteristic of the area. The walkover survey and mapping regression exercises did not

note any particular morphology which would indicate potential for a significantly older origin (these might include field boundaries with shapes indicative of medieval ridge and furrow cultivation, changes in alignment that may indicate the former presence of enclosures, routes or earthworks etc). The lawns/meadows to the south and east of Berry Hall do have some distinct character. These were discussed in the assessment with reference to the setting of the Hall rather than the estate as a whole because the layout and design of the open space, driveway and current and former planting is clearly a framing device for the approach to the hall and views from it (paragraphs 6.7.25 and 6.7.27). The value here is negligible to low.

19. To summarise the oral submission made at the ISH2, in the opinion of the Applicant's heritage expert the estate, in the context of being considered separately from relationships with the listed buildings and their curtilages, is not of outstanding historic interest.
20. The 1826 Bryant map and the 1838 East Tuddenham tithe map and apportionment were not available for the production of the Environmental Statement. A version of each has since been made available online through Norfolk Council Archive service and the Genealogist website respectively. Unfortunately, the tithe is only available through a subscription service and commercial reproduction is not licenced. The archive references in the estate management plan (REP1-048) had access to these plans and apportionment and so this information is new to the environmental statement but not new to the estate. The 1838 Honingham tithe was available to the ES as well as the estate through their management plan.
- 21.
22. Please note this is a Cultural Heritage judgement, not a Landscape and Visual judgement. It also does not intend to falsify the Natural England assessment and recommendation to HMRC/treasury, as the specific contexts, requirements and purposes of the assessments are very different.
23. The potentially medieval trackways must be refuted as a matter of professional ethics (Chartered Institute for Archaeologists (CIfA) Code of Conduct: professional ethics in archaeology 2014 updated 2021). The only secure dating evidence we have is that they must date to before the 1838 tithe map. They are not shown on the Bryant or Faden maps but, these maps are of a scale where this would not be expected. By drawing attention to a single period, the survey report (REP-047) is not making a terrible assumption, but is lending undue credence to this arbitrary period and thus misrepresents the past. To be clear, this is not an indictment of any individuals involved in the assessment and management of the estate but is an illustration of the difference in guiding standards of assessment between the contexts of the requirements of the Berry Hall estate documents and this DCO submission. To the best of the applicant's knowledge none of the estate documents were produced by members of CIfA and the reports did not have to conform to these standards, or the standards of EIA regulations, planning legislation and guidance or DMRB guidance in order to be valid for their purpose.
24. The trackways are not mentioned in the ES submission as they are not potentially affected and therefore not within the study area.
25. The findspot evidence may be causally linked with agricultural practices of the estate as far as casual loss of post-medieval artefacts however, these are of negligible value (APP-085 Table 4, MNF65142, MNF65143). Roman findspots were one impetus behind the locations of archaeological trenching (APP-088) and are "residual" finds. That is, finds with no stratigraphic

context, which may have arrived at this location through a large number of causes that reduce their usefulness to interpretation and prediction of archaeological potential. Examples of this would be agricultural practices such as night-soil, which brings in material from cities (often mixed up and containing older material) or ploughing over many centuries distributing artefacts from casual loss in topsoil throughout a wide area.

26. In response to points by Mr Meynell's representative made during various stages of Issue Specific Hearing 2, that:
  - a. Part of the function of the estate is to provide income for the upkeep of the listed buildings.
  - b. The nature of the agricultural practice (independent smallholding) is rare and culturally valuable
  
27. Part of the function of all agricultural land is to provide income, some of which goes to the upkeep of property. Two of the largest landowners in the UK are the Church of England and the Crown Estate. Both of these bodies are responsible for the care of a great number of listed buildings, as well as other designated cultural heritage assets, which are maintained through direct and indirect profits from farming that land. This reasoning would, by extension ascribe high cultural heritage significance to much of the UK farmland. This is clearly not a practicable principle to apply, even before considering all of the land that might contribute to the upkeep of historic properties outside of those bodies.
  
28. Secondly, the type of farming practice is, outside of the physical traces it may leave in the archaeological record, "Intangible Cultural Heritage". This is one of the many nuanced pieces of information that goes into the assessment of value. However, the UK is not a signatory to the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003). The devolved national governments of Scotland, Wales and Northern Ireland have voluntarily adopted measures within their planning regimes to recognise and protect intangible cultural heritage but, England has not. Therefore the value this can be said to bring to the asset is minimal to nil.
  
29. Lastly, during Issue Specific Hearing 2, Mr Meynell's representatives made several passing references to "ancient hedgerows". The applicant's cultural heritage expert accepted this may be a term used in other environmental disciplines but clarified that this is not a cultural heritage term. For the sake of removing ambiguity, there are no hedgerows in the study area which qualify as an "Important Hedgerow" according to the historic criteria of The Hedgerows Regulations 1997 (Schedule 1 part 2, criteria 1 through 5).

## **6 Annex D**

## ANNEX D OF THE APPLICANT'S ORAL SUBMISSIONS OF ISH2

### A47 NORTH TUDDENHAM TO EASTON DEVELOPMENT CONSENT ORDER APPLICATION

#### CLIMATE ANNEX TO APPLICANT'S WRITTEN SUBMISSIONS FOLLOWING ISH2

To assist the Examination, the Applicant has structured written responses to the Climate matters in the way that the Secretary of State is required to approach the determination of the DCO Application in accordance with section 104 of the Planning Act 2008

1. The approach to be taken to the consideration of carbon emissions and impacts in the determination of applications for development consent for national networks infrastructure is set out in paragraphs 5.16 – 5.19 of the NNNPS, which was approved by Parliament. As confirmed in the Ministerial Statement of 22 July 2023, pending the outcome of the announced review of the NNNPS

*"...the NPS remains relevant government policy and has effect for the purposes of the Planning Act 2008. The NPS will, therefore, continue to provide a proper basis on which the Planning Inspectorate can examine, and the Secretary of State can make decisions on, applications for development consent."* The statutory basis for the designation and review of a national policy statement is set out in sections 5 and 6 of the Planning Act 2008.

2. In respect of the assessment of carbon emissions, the Introduction at NNNPS paragraph 5.16 states that *"The Government has a legally binding framework to cut greenhouse gas emissions by at least 80% [now 100%] by 2050. As stated above, the impact of road development on aggregate levels of emissions is likely to be very small. Emission reductions will be delivered through a system of five year carbon budgets that set a trajectory to 2050. Carbon budgets and plans will include policies to reduce transport emissions, taking into account the impact of the Government's overall programme of new infrastructure as part of that."*

As legislated for in section 1 of the Climate Act 2008 (as amended), the Secretary of State is required to ensure attainment of the net zero 2050 target. Section 4 Act requires the Secretary of State to ensure attainment of the carbon budgets at the relevant carbon budget period dates. Therefore, delivery of the emissions reductions necessary to achieve net zero by 2050 is measured through the pathway provided by interim targets of the carbon budgets.

The Net Zero Strategy: Build Back Greener (published October 2021):

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1028157/net-zero-strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1028157/net-zero-strategy.pdf)) was presented to Parliament pursuant to Section 14 of the Climate Change Act 2008. It sets out the next steps to be taken to cut carbon emissions in order to meet the Sixth Carbon Budget (2033 – 2037) and also the UK's 2030 Nationally Determined Contribution for the purposes of the Paris Agreement on Climate Change (described in the Technical Appendix to the Net Zero Strategy publication at pp 309 – 310). The Net Zero Strategy builds on the findings in the latest report by the Intergovernmental Panel on Climate Change (IPCC (2021), 'Sixth Assessment Report', <https://www.ipcc.ch/assessment-report/ar6/>) and references the role of the DfT's Transport Decarbonisation Plan, which the Applicant referred to in its Response to the Examining Authority's First Written Questions (ExQ1) (**REP2-014**).

The Climate Change Committee's Independent Analysis: The UK's Net Zero Strategy

(<https://www.theccc.org.uk/wp-content/uploads/2021/10/Independent-Assessment-of-the-UK-Net-Zero-Strategy-CCC.pdf>)

(October 2021) states "Our overall assessment is that it is an ambitious and comprehensive strategy that marks a significant step forward for UK climate policy, setting a globally leading benchmark to take to COP26. Further steps will need to follow quickly to implement the policies and proposals mapped out in the Net Zero Strategy if it is to be a success.". The Climate Change Committee notes that "A zero emission vehicle mandate will be the key delivery tool for electric vehicles, as

recommended by the Committee" and "The Transport Decarbonisation Plan is a reasonably comprehensive strategy for transitioning to a system in which almost all journeys are zero-carbon." Since the majority of operational GHG emissions from the Scheme will be from tail pipes rather than the infrastructure for which development consent is sought, it is material that there are up-to-date Government policies and strategies that seek to provide the pathway to delivering net zero by 2050. The Climate Change Committee's green/yellow/orange/red analysis of UK Climate Policy – State of Play (Table 2 at page 28 of the independent Analysis – link above) identifies that in respect of domestic transport, including domestic aviation and shipping, green (signalling "good plans") applies to publishing of the plans to achieve net zero, sufficient ambition and proper funding and/or incentives. It has allocated yellow ("generally good plans with some risks") to credible delivery policies, balanced mix of options and timelines for implementation. There are no orange ("more risks") or red ("significant risks") classifications identified in respect of domestic transport.

The Climate Change Committee describes the key actions in the coming years in respect of implementing the Transport Decarbonisation Plan as follows "This [Transport Decarbonisation Plan] included a clear roadmap for delivering the transition to electric vehicles, based on a zero-emission vehicle mandate. Phase-out dates for other types of non-zero-emission road vehicles have also been proposed, sending clear signals to the market. Alongside this, there is recognition of the need to reduce road traffic growth, supported by spending commitments on active travel and public transport. These now need to be turned into measurable targets and clear delivery policies to achieve this ambition."

Neither a reduction in road traffic growth or achieving net zero are incompatible with the need for the proposed Scheme. Indeed, the Transport Decarbonisation Plan provides clear policy recognition that there is a need for further road investment: "In 2019, our roads handled 88 per cent of all passenger travel by distance, the vast majority of it by car or van. Even doubling rail use across the country would only reduce this proportion to 75 per cent, assuming that overall demand did not rise. The roads also carry more than three-quarters of freight traffic, and of course nearly all pedestrian, cycling, bus and coach journeys. Continued high investment in our roads is therefore, and will remain, as necessary as ever to ensure the functioning of the nation and to reduce the congestion which is a major source of carbon." (page 103)

The Net Zero Strategy and the Transport Decarbonisation Plan set out a wide range of mechanisms outside of the planning system that are proposed to be utilised to deliver the net zero by 2050 target and the shift to zero emission road transport. In considering whether or not to grant consent for a development, a decision maker is entitled to assume that other regimes will operate effectively: *Gateshead MBC v Secretary of State for the Environment* [1995] Env. L.R. 37.

The Transport Decarbonisation Plan recognises that there are uncertainties and a need to continue to develop and refine the range of policies and proposals to ensure that the transport sector fulfils its contribution to the legally binding climate targets, with Government taking such additional targeted action as is needed to enable the targets to be met "We will regularly review progress against our targets, and continue to adapt and take further action if needed"(page 92).

In accordance with section 104 of the Planning Act 2008 the Secretary of State is required to determine the application in accordance with the NNNPS unless one or more of subsections (4) to (8) apply. Subsection (4) "applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations". It is relevant in this respect to note that:

The UK confirmed its Nationally Determined Contribution (NDC) under the Paris Agreement to the United Nations Framework Convention on Climate Change (UNFCCC) in December 2020. The NDC commits the UK to reducing economy-wide greenhouse gas emissions by at least 68% by 2030, compared to 1990 levels.

The NDC aligns with the legislated UK carbon reduction target in the 6th Carbon Budget, which, by setting a carbon budget for the period 2033 to 2037 of 965 MtCO<sub>2e</sub>, will achieve an emissions reduction of 78% by 2035 compared to 1990 levels.

As presented in ES Chapter 14 **APP-053** the climate assessment will not impact the UK achieving its carbon reduction targets. In turn it can therefore be concluded that there are no implications of the development in relation to the Paris Agreement and the UK's Nationally Determined Contribution under the Paris Agreement.

This conclusion is consistent with the Climate Change Committee's independent analysis, which states that the Net Zero Strategy "sets out sectoral ambitions that add up to a quantified pathway to meet the UK's Nationally Determined Contribution (NDC) for 2030 and the Sixth Carbon Budget covering the mid-2030s." Accordingly, the Applicant does not consider that there is a reasonable basis on which it could be concluded that the climate effects of the Scheme would invoke section 104(4).

3. The approach that the Applicant is required to take to the assessment of carbon impacts and climate factors is set out at NNNPS paragraph 5.17: "Carbon impacts will be considered as part of the appraisal of scheme options (in the business case), prior to the submission of an application for DCO. Where the development is subject to EIA, any Environmental Statement will need to describe an assessment of any likely significant climate factors in accordance with the requirements in the EIA Directive. It is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet its carbon reduction plan targets. However, for road projects applicants should provide evidence of the carbon impact of the project and an assessment against the Government's carbon budgets." For the purposes of the assessment, DMRB LA 114 – Climate sets out the requirements for assessing and reporting the effects of climate on highways (climate change resilience and adaptation), and the effect on climate of greenhouse gas from construction, operation and maintenance projects. The methodology followed in ES Chapter 14 for assessing the impact of the Scheme on climate is that set out in DMRB LA 114 section 3. In particular:

- Study areas: ES Chapter 14 uses the study areas identified in DMRB LA 114 :

*3.8 For construction and operational maintenance, the study area shall comprise GHG emissions associated with project construction related activities/materials and their associated transport.*

*3.9 For operational road user GHG emissions, the study area shall be consistent with the affected road network defined in a project's traffic model.*

- Baseline scenario: ES Chapter 14 complies with the requirements in DMRB LA 114 paragraph 3.10 that GHG emissions without the project shall be identified for current and future GHG emissions, that the boundary of the baseline GHG emissions should include current operational maintenance GHG emissions and operational user GHG emissions, and that the baseline GHG emissions should be consistent with the study area outlined for the project.
- Data collection: ES Chapter 14 presents the information identified in DMRB LA 114 paragraph 3 Table 3.11.1 on sources and lifecycle stages for project GHG emissions that should be obtained to inform the assessment. Construction of the Scheme has been calculated using the Highways England Carbon Tool (v2.3), whilst maintenance and operational emissions have been calculated over a 60-year appraisal period. To calculate end-user emissions, the traffic model and affected road network utilised for PCF stage 3 has been developed in line with the Department for Transport (DfT) Transport Appraisal Guidance (TAG). In following this approach, the Scheme has taken account of other planned developments within this area.

As discussed in Section 6 of the Transport Assessment (TA) (**APP-140**), the strategic Norwich Area Transport Strategy Model (referred to as the NATS Model) is used as the basis to derive forecasted traffic impacts of the Scheme's performance across the wider area. The



traffic model and affected road network utilised for PCF stage 3 has been developed in line with the Department for Transport (DfT) Transport Appraisal Guidance (TAG). In accordance with TAG guidance, developments and transport schemes identified in the uncertainty log with the likelihood of at least 'near certain' or 'more than likely' were included in the core scenario forecasts (please see TA section 6.3 for further details (**APP-140**)). Accordingly, the assessment presented in Chapter 14 is compatible with DMRB LA 114.

- Significance criteria: DMRB LA 114 paragraph 3.18 requires that an assessment of project GHG emissions against UK government or overseeing organisation carbon budgets shall be undertaken and presented. In accordance with NNNPS paragraph 5.17 and DMRB LA 114 paragraphs 3.18 – 3.20 and Table 3.18 "Project GHG emissions against relevant carbon budgets", the assessment provided in Chapter 14 is against the relevant Government carbon budgets.

4. The NNNPS sets out the approach that the Secretary of State should take when considering carbon emissions in decision-making at paragraph 5.18: "The Government has an overarching national carbon reduction strategy (as set out in the Carbon Plan 2011) which is a credible plan for meeting carbon budgets. It includes a range of non-planning policies which will, subject to the occurrence of the very unlikely event described above, ensure that any carbon increases from road development do not compromise its overall carbon reduction commitments. The Government is legally required to meet this plan. Therefore, any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets."

A number of policy documents have been published by Government since the Carbon Plan 2011, most recently the transport decarbonisation plan "Decarbonising transport: a better, greener Britain" (14 July 2021) and the Net Zero Strategy: Building Back Greener (October 2021). All follow the approach legislated for in the Climate Change Act 2008 (as amended) and described at paragraph 2 above. Reducing emissions in the transport sector is the subject of Chapter 3v of the Net Zero Strategy (at pages 152 – 166), which includes the indicative domestic transport emissions pathway to 2037 at Figure 21 and the key commitments to achieve this: "The policies and proposals for transport in the Net Zero Strategy will... remove all road emissions at the tailpipe..." (page 24). The Applicant recognises that they have a key role in the development and maintenance of a strategic road network that will facilitate the journey to net zero emissions. The Highways England Roadmap to net zero by 2050 sets out commitments to develop a blueprint for EV charging and energy storage by 2023 and to report to government on global HGV technology trials and set out proposals for trials in the UK in 2022.

Accordingly, Government policy and strategies on the delivery of net zero in the domestic transport sector is up-to-date, has been independently analysed by the Climate Change Committee and is found to provide a credible path to achievement of net zero by 2050 and to compliance with the UK's international obligations under the Paris Agreement.

5. The NNNPS requires that the assessment of significance of effects on climate for DCO applications should be undertaken at the national level, which is the basis of the UK Government carbon budgets. The methodology set out in DMRB LA 114 (Climate) follows this approach. It should be noted that paragraph 2.6 of DMRB 114 advises that the assessment and reporting of the effects of climate shall be undertaken in accordance with the requirements in four over-arching environmental assessment documents. The ES for the proposed Scheme complies with the requirements set out in these documents, which themselves align with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (EIA Regulations). In particular, one of the four over-arching environmental assessment documents is DMRB LA 104 Environmental assessment and monitoring. DMRB LA 104 includes a series of definitions and requirements relating to cumulative assessment that have direct application to each of the individual environmental factors, including climate.

The LA104 standard provides a definition of cumulative assessment as:

*Impacts that result from incremental changes caused by other present or reasonably foreseeable actions together with the project. NOTE: For the purposes of this guidance, a cumulative impact can arise as the result of: a) the combined impact of a number of different environmental factors - specific impacts from a single project on a single receptor/resource; and/or b) the combined impact of a number of different projects within the vicinity (in combination with the environmental impact assessment project) on a single receptor/resource.*

It sets out the expectation that “*Environmental assessments shall assess cumulative effects which include those from: 1) a single project (e.g. numerous different effects impacting a single receptor); and 2) different projects (together with the project being assessed).*”

The Applicant explained how it has provided this assessment at ISH2 and in its Written Response to ISH2 (**TR010038/EXAM/9.20**). The Applicant's Response to the Additional Submission by Dr Boswell (on behalf of CEPP) published 28/10/2021 is provided at (**TR010038/EXAM/9.16**), and further explains why the Applicant's assessment complies with the requirements of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. In particular, the assessment in the ES at Chapter 14: Climate has included such information as is reasonably required to assess the environmental effects of the development and which the Applicant could reasonably be required to compile having regard to current knowledge. Since only Government is in the position to identify cumulative targets, the current knowledge available to the Applicant comprises the national targets set out in the carbon budgets. No sectoral target has been set by Government for road transport. As a result there is no target for the road transport sector against which the Applicant can carry out a cumulative assessment that aggregated GHG emissions from the Scheme with those from any particular category of developments. Accordingly, a cumulative assessment against a target for the road transport sector is not a matter which the Applicant could reasonably be expected to be required to compile having regard to current knowledge. Further, it is not possible to attribute a specific local emission of carbon to effects on a local receptor so, unlike other cumulative impact assessments, there is no logical study area capable of definition by the nature of the effect itself. The approach in LA114 and in ES Chapter 14: Climate of assessment against the national Carbon Budget targets, which span cumulative economic sectors, is correct.