

# A47/A11 Thickthorn Junction

**Scheme Number: TR010037**

**Volume 9**

## **9.6 Applicant's Comments on Local Impact Reports**

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

Planning Act 2008

October 2021

Infrastructure Planning

Planning Act 2008

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

A47/A11 Thickthorn Junction  
Development Consent Order 202[x]

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**APPLICANT'S COMMENTS ON LOCAL IMPACT REPORTS**

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## **1 INTRODUCTION**

- 1.1.1 The Development Consent Order (DCO) application for the A47/A11 Thickthorn Junction was submitted on 31 March 2021 and accepted for examination on 28 April 2021.
- 1.1.2 The purpose of this document is to set out Highways England's (the Applicant) comments on Local Impact Reports submitted to the Examining Authority at Deadline 1 on 13 October 2021.

## 2 APPLICANT'S COMMENTS ON NORFOLK COUNTY COUNCIL'S LOCAL IMPACT REPORT

The Local Impact Report (REP1-008) submitted by Norfolk County Council at Deadline 1 has been examined by the Applicant and the responses to the questions and concerns raised are provided in the tables below:

### HIGHWAYS AND DETRUNKING

Section Number	Comment	Response
4.3.7	Based on the assessment, it appears that the predicted traffic growth will make the A11 approach from Norwich the worst performing arm in the future in terms of capacity and delay. This appears to be exacerbated by the enhanced throughput of the junction which gives rise to additional traffic on this approach. The county council would want to discuss this issue in more detail with Highways England to see if anything could be done at this location as part of the scheme to minimise this effect.	Highways England are willing to discuss this issue.
4.4.1	"No agreement has been made to accept any current Highways England assets and we will not do so until an agreement process including exchange of data and provision of funding regarding assets which may require attention in the short to medium term has been completed.  The agreement should be based on the condition and number of the assets to generate either a sum of funding to be transferred to Norfolk County Council, or the asset brought up to an as new or good condition. The county council would expect to receive a commuted sum, agreed with Highways England, for future maintenance of transferred assets"	Highways England continue to work with NCC to reach agreement on the transfer of assets.
4.4.2	"The county council does not support classification of the new link from Cantley Lane South to the B1172 as a B class road. Cantley Lane South is currently effectively a single lane track with passing bays along it, predominantly used by northbound traffic. Classifying the road as a B road is likely to indicate to traffic that that this is a through route and encourage further traffic, which would not be appropriate. We would want to have further discussions with Highways England on the classification of this link and on the detail of the destinations signed along it from the B1172 Hethersett Road."	Highways England are willing to discuss this issue and will be guided by NCC's advice on this matter.

## SOCIO-ECONOMIC ISSUES

Section Number	Comment	Response
4.5.1	The county council would certainly want to see opportunities for inclusive growth and social mobility included in the socio-economic opportunities for Norfolk. We would be willing to work with Highways England or the appropriate agency to support this.	A key objective of the Scheme is to reduce congestion related delay, improve journey time reliability and increase the overall capacity of the A47. This will help contribute to sustainable economic growth by supporting regional housing and economic growth in Norwich and the surrounding areas. Section 4.13 'Walking, Cycling and Horse-riding (WCH) Assessment' of the 7.1 Case for the Scheme ( <b>APP-125</b> ) also demonstrates how the Scheme would provide new WCH facilities, improve accessibility for users in the local area and provide the opportunity to choose active travel modes (e.g. walking and cycling).
4.5.1	The county council will continue to work proactively with Highways England to encourage apprenticeships, work experience and internships being included at an appropriate stage in the project.	The Applicant and Galliford Try, as the Principal Contractor, will explore opportunities to encourage direct and indirect local employment, proportionate to the scale and timescale of the project.

## AIR QUALITY

Section Number	Comment	Response
4.7.1	The county council supports improvements to air quality and would want to see continued monitoring including in operation of the scheme following construction	The air quality assessment in ES Chapter 5 ( <b>APP-42</b> ) concludes that there are no significant effects on air quality arising from the Scheme.

## CULTURAL HERITAGE

Section Number	Comment	Response
4.8	No comments from NCC	This comment is acknowledged and no response is required from the Applicant

## ARBORICULTURE

Section Number	Comment	Response
4.8.1	The Arboricultural Impact Assessment (AIA), in accordance with BS5837:2012 Trees in relation to design, demolition and construction, recommendations submitted by RSK ADAS Ltd, dated February 2021 is fit for purpose (based on the information provided at the time of survey) with regards to assessing existing tree quality and calculating impacts. The report also gives clear advice with regards to relevant legislation, construction techniques, utility installation and other on-site methodology to mitigate impacts to trees.	This comment is acknowledged and no response is required from the Applicant

Section Number	Comment	Response
4.8.1	<p>However, there are x 5 category A, x 7 category B trees and x 1 category B tree group designated for removal that should be retained should any design changes allow. In addition, 27 tree groups and two woodlands will require partial removal. These include B grade tree groups G9, G10, G11, G13, G14, G21, G22, G23, G27, G38, G88, G89 and B grade woodland W2. It should be noted that B category trees might only have been downgraded from category A due to an observed impaired condition. They are still of significance and should be retained where possible or compensated adequately for if removal is unavoidable (as recommended in BS5837:2012)</p>	<p>Tables 8-9 and Table 8-10 of ES Chapter 8 of the sets out the proposed mitigation during construction and operation where retention is unavoidable. In addition, please see the Applicant's response to the Examining Authorities First Written Questions BIO 3.1.</p>
4.8.1	<p>W2 has been described within 6.3 Environmental Statement - Appendix 8.1 Botanical Survey Report as 'a priority habitat and potentially ancient woodland (present since at least 1840).' However, this was not observed within the AIA (potentially because the Ancient Woodland Inventory only records ancient woodlands of over two hectares in size). This needs clarification as it could affect the scheme's design, mitigation and/or compensation due to the national significance of such habitats; explained in further detail below.</p>	<p>The Multi Agency Geographic Information for the Countryside (MAGIC) website, which is managed by Natural England (and the Forestry Commission is a partner organisation), does not show Cantley Wood (referenced as W2 in the Arboricultural Impact Assessment) as being ancient woodland.</p>
4.8.1	<p>With regards to the x 5 category A trees with veteran and/or over-mature/ancient characteristics to be removed (situated within the new Cantley Lane Link Road section of the development), T14 has a stem diameter at breast height of over two metres which is quite exceptional. These trees are open-grown individuals, likely remnants of historic parkland or wood pasture. They have high arboricultural, landscape, conservation and cultural values.</p>	<p>This has previously been addressed in the Applicant's relevant representation response to RR027, AS-007.6 submitted at Deadline 1 and the Applicant's response to the Examining Authorities First Written Questions BIO 3.1 submitted at Deadline 2.</p>
4.8.1	<p>These are irreplaceable habitats with some or all of the following characteristics (as stated in the government guidance note:  <span style="background-color: black; color: black;">[REDACTED]</span>  <span style="background-color: black; color: black;">[REDACTED]</span></p>	<p>This comment is acknowledged and no response is required from the Applicant</p>
4.8.1	<p>Ancient woodland takes hundreds of years to establish and is defined as an irreplaceable habitat. It's important for its:</p> <ul style="list-style-type: none"> <li>• Wildlife (which include rare and threatened species)</li> <li>• Soils</li> <li>• Recreational value</li> <li>• Cultural, historical and landscape value.</li> </ul>	<p>This comment is acknowledged and no response is required from the Applicant</p>



Section Number	Comment	Response
	<p>It's any area that's been wooded continuously since at least 1600 AD. It includes:</p> <ul style="list-style-type: none"> <li>• Ancient semi-natural woodland mainly made up of trees and shrubs native to the site, usually arising from natural regeneration</li> <li>• Plantations on ancient woodland sites - replanted with conifer or broadleaved trees that retain ancient woodland features, such as undisturbed soil, ground flora and fungi.</li> </ul> <p>They have equal protection in the National Planning Policy Framework (NPPF). Other distinct forms of ancient woodland are:</p> <ul style="list-style-type: none"> <li>• Wood pastures identified as ancient</li> <li>• Historic parkland, which is protected as a heritage asset in the NPPF.</li> </ul> <p>Many of these do not appear on the Ancient Woodland Inventory because their low tree density did not register as woodland on historic maps.</p>	
4.8.1	<p>Highways England should give consideration to wood pasture identified as ancient in planning decisions in the same way as other ancient woodland. 'Wooded continuously' does not mean there's been a continuous tree cover across the whole site. Not all trees in the woodland have to be old. Open space, both temporary and permanent, is an important component of ancient woodlands</p>	<p>This has previously been addressed in the Applicant's relevant representation response to AS-007.6 submitted at Deadline 1 and the Applicant's response to the Examining Authorities First Written Questions BIO 3.1 submitted at Deadline 2. The Applicant notes that Highways England does not make planning decisions.</p>
4.8.1	<p>"All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree might not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value. The National Planning Policy Framework (NPPF), updated in 2018, includes a provision that "development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons" (paragraph 175c). It is understood that this development is seeking a Development Consent Order to prove its 'wholly exceptional' status, but it must:</p> <ol style="list-style-type: none"> <li>1. Avoid impacts</li> <li>2. Reduce (mitigate) impacts</li> <li>3. Compensate as a last resort.</li> </ol> <p>In response to an earlier consultation (noted in document 5.2 Consultation Report</p>	<p>This has previously been addressed in the Applicant's relevant representation response to RR027 submitted at Deadline 1.</p>

Section Number	Comment	Response
	Annex M: Table Evidencing Regard had to Statutory Consultation Responses), the Forestry Commission noted the loss of the veteran trees and suggested the felled timber should be moved to adjacent shared green space where 'the material can decay by natural processes and continue to provide natural deadwood habitat'. This prescription provides a degree of mitigation to the overall impact and is supported."	
4.8.1	"The AIA has identified that a site compound is shown within the RPA of A grade trees T16, T18, T19, T20, G20, T21, T23, T25; and B grade trees T17, T24 and G26. Should this location not be subject to change, these trees will be under threat from damage such as compaction and pollution. The AIA gives guidance and methodology to avoid and reduce these impacts. Threats to the health of remaining trees have also been identified with regards to construction of fence lines, change of soil levels, installing utilities and close proximity working."	Item LV2 of Table 3-1 of the REAC contained in the environmental management plan details that an arboricultural method statement shall be prepared by an arboricultural consultant. This will include tree protection measures in compliance with BS5837:2012
4.8.1	"Should the proposals be approved, it should be conditioned (and submitted for approval prior to works commencing) that the AIA will be updated to include: <ul style="list-style-type: none"> <li>• Tree Constraints Plan</li> <li>• Tree Protection Plan</li> <li>• Arboricultural Method Statement</li> <li>• Timetable for Implementation of Tree Protection Works."</li> </ul>	Item LV2 of Table 3-1 of the REAC contained in the environmental management plan details that an arboricultural method statement shall be prepared by an arboricultural consultant.
4.9.3	The AIA appears to conform to industry standards and be fit for purpose. There are a considerable number of large trees proposed for removal including areas of mature woodland, and a number of irreplaceable veteran trees. We would of course, in the first instance prefer to see these trees retained where possible, and amendments made to the scheme to allow the retention of more trees.	The proposed Scheme design has been through an iterative process and delivery of the required modern highway standards has necessitated the unavoidable removal of all the trees within group G24 and the majority of those within G25. Whilst the majority of trees within G17 will be retained. Those trees that are retained will be protected by adequate tree protection barriers so as to prevent them being damaged during the construction phase.

## ENVIRONMENTAL MASTERPLAN

Section Number	Comment	Response
4.8.2	The Environmental Masterplan details replanting proposals in a clear visual format but without species detail or quantification. It is not clear at this stage, how planting design has been calculated to ensure adequate replacements for losses incurred will be achieved. This requires clarification	This has previously been addressed in the Applicant's relevant representation response to RR-011.9 and Common Response F submitted at Deadline 1.
4.8.2	Trees and woodlands are part of the wider landscape mitigation that will be required and it should be the quality and resilience of the resulting landscape, taking all habitats into account, rather than the number of replacement trees that will dictate whether the mitigation is acceptable. We would expect a minimum 30-year compensation strategy to be submitted, based on a calculation of habitat loss and demonstrating net gain.	This has previously been addressed in the Applicant's relevant representation response to RR-011.9 and Common Response F submitted at Deadline 1.

Section Number	Comment	Response
4.8.2	<p>This strategy would usually include the area surrounding the application boundaries and should consider the following examples:</p> <ul style="list-style-type: none"> <li>• Planting of new woodlands, hedgerows with trees, individual and tree groups</li> <li>• Management plans and schedules to maintain newly planted trees and woodlands</li> <li>• Connecting woodland and ancient and veteran trees separated by development with green bridges</li> <li>• Planting individual trees that could become veteran and ancient trees in future</li> <li>• Management agreements with adjacent landowners to provide or assist with woodland management to improve tree resilience and biodiversity</li> <li>• Providing management schedules for existing veteran and ancient trees /woodlands nearby</li> <li>• Extending existing woodland and ancient woodland through natural regeneration / rewilding</li> <li>• Selective veteranisation of specific trees</li> </ul>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
4.9.3	<p>Trees in such large numbers play an important part in the wider landscape and act as features seen from great distances. <b>Where the retention of trees is not possible, then suitable mitigation in line with Norfolk County Council's tree policy would be our next expectation.</b> Whilst this will not replace the loss of mature and veteran trees, it will form the foundation of the future landscape. The location of such trees, tree belts, hedges and woodland should be carefully chosen to not just screen the development, but also be reflective and respectful of the wider landscape.</p>	<p>This has previously been addressed in the Applicant's relevant representation response to RR-011.9 and Common Response F submitted at Deadline 1.</p> <p>The Applicant also makes reference to ES Chapter 7, Landscape and Visual (<b>APP-044</b>) Section 7.3, in particular paragraph 7.3.1 which states <i>The policies of greatest relevance to the potential landscape and visual effects of the Proposed Scheme are those set out within the National Policy Statement for National Networks (NPS NN) and within the South Norfolk Local Plan Development Management Policies Document (DMPD, South Norfolk Council, 2015). The NPS NN states that where a</i></p>

Section Number	Comment	Response
		<p><i>local development document in England has policies based on landscape character assessment, these will be given particular consideration. This is the case in South Norfolk.</i></p>
4.9.3	<p>Environmental Masterplan TR010037/APP/6.8: The plans provide detailed proposals for the landscaping of the scheme. <b>Further planting specification and planting details will be required, as well as management plans for the establishment and long-term maintenance of the various landscaping, landscape features and landscaped elements.</b></p>	<p>The Applicant has designed the proposed Scheme to minimise the loss and impact on trees as much as possible, and therefore mitigate the loss at the design stage.</p> <p>All of the tree planting proposed as part of the Scheme is set out in the Environmental Masterplan (<b>APP-123</b>). The amount or extent of new tree planting shown by the Environmental Masterplan (<b>APP-123</b>) is considered to represent the optimum quantum of new tree planting within the DCO boundary taking account of a full range of considerations including the landscape character context; gradients associated with the earthworks; health and safety in regard to future management; and other ecological objectives (for example the value in some locations of retaining some areas of habitat mosaic and open grassland).</p>
4.9.3	<p>Whilst net gain is not a requirement for DCO applications, a clear understanding of how mitigation planting numbers have been reached, and demonstration that they are calculated to suitably compensate losses needs clarifying.</p>	<p>The Scheme seeks to maximise biodiversity delivery in accordance with the current statutory and policy requirements. The Scheme has aligned with Best Practice Principles, specifically those published by CIEEM, in developing its landscaping and biodiversity proposals. These incorporate high biodiversity (or priority habitats) including grasslands, hedgerows and woodland as shown in the Environmental Masterplan (<b>APP-123</b>).</p> <p>Appendix B.5 of the Environmental Management Plan (EMP) (<b>APP-128</b>) 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 Project. The commitment to</p>

Section Number	Comment	Response
		<p>deliver the LEMP will be secured through Requirement 4 of the dDCO (<b>APP-017</b>)</p> <p>There is currently no mandated framework for calculating and reporting on biodiversity net gain (BNG). Any such calculation is subject to the commencement of the Environment Act and its associated secondary legislation, which is expected to set out the SoS biodiversity metric and methodology. Any calculation using existing Biodiversity Metric approaches is still subject to variation. For this reason, the Applicant cannot commit to providing overall BNG or indicate the extent of BNG.</p>
4.9.3	Detailed design might be required for some elements when specifications are confirmed further during the process. We note that a Landscape and Ecology Management Plan will be produced.	This comment is acknowledged and no response is required from the Applicant.
4.9.3	There are dispensaries with some trees at the end of Cantley Lane south, clarification needed on whether these are to be retained.	Vegetation retention is shown on the Environmental Masterplan ( <b>APP-123</b> )
4.9.3	Mapping of the Meadow Farm county wildlife site across documents should be confirmed as there are some discrepancies.	Meadow Farm CWS is shown partially on the Environmental Masterplan ( <b>APP-123</b> ) as only those areas where landscaping is required are shown. On Figure 2.1 ( <b>APP-054</b> ) the County Wildlife site is shown in full.

## LANDSCAPE

Section Number	Comment	Response
4.9.2	<p>Veteran Trees are irreplaceable habitats and form an important part of the cultural and historical landscape, the loss of these trees in the landscape cannot easily be replaced with trees of similar amenity value, by nature of their scale and size, it would take a considerable length of time to achieve anywhere near the same amenity value. [REDACTED]</p>	<p>The proposed Scheme design has been through an iterative design process and delivery of the required modern highway standards has necessitated the alignment of the Scheme.. As a result of this, removal of two veteran trees (T13 and T14 north of the A11) has been determined as unavoidable.</p> <p>Item B10 of Table 3.1 (Record of Environmental Actions and Commitments) in the Environmental Management Plan (<b>APP-123</b>) notes that all veteran and mature trees to be retained that are within close proximity to the works will be protected with a suitable buffer zone to ensure they are not damaged during the construction phase. This buffer zone will be protected by the use of tree protection barriers. The Arboricultural Method Statement will also be adhered to during construction.</p> <p>The same item B10 also notes that any trees removed as part of the works will be relocated to nearby suitable woodland parcels to provide suitable habitat for invertebrates.</p>
4.9.2	<p>The National Planning Policy Framework (NPPF), updated in 2018, includes a provision that “development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons” (paragraph 175c).</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
4.9.2	<p>It is understood that this development is seeking a Development Consent Order to prove its 'wholly exceptional' status, but it must:</p> <ol style="list-style-type: none"> <li>1. Avoid impacts</li> <li>2. Reduce (mitigate) impacts</li> <li>3. Compensate as a last resort</li> </ol>	<p>This comment is acknowledged and no response is required from the Applicant.</p>

Section Number	Comment	Response
4.9.2	Referring to ES Chapter 7: 7.4.1 Suitable guidance is being used and adhered to, and we welcome other relevant references being taken account of.	This comment is acknowledged and no response is required from the Applicant.
4.9.2	7.4.14 Tables 7-1 and 7-2 lay out the proposed scope in terms of both landscape and visual effects. Norfolk County Council broadly agrees with the elements which have been scoped in and out of the assessment. The table notes that there are no landscape designations. However, to the south east of the existing Thickthorn roundabout, close to where the proposed new slip road joins the A47 is Intwood Hall, a nationally registered grade 2 historic park and garden. This does not appear to be mentioned in this table, not even in a similar fashion to Thickthorn Hall. Justification might be needed to clarify this.	It is noted that Thickthorn Hall and associated park and garden is immediately west of the Scheme. The A11 to A47 slip road, where it connects to the A47 is approximately 0.85km northwest of Intwood Hall therefore, Intwood Hall hasn't been considered in the same fashion as Thickthorn Hall.
4.9.2	7.4.22 We support and share concerns regarding the key issues raised by consultees previously.	This comment is acknowledged and no response is required from the Applicant.
4.9.2	7.7.2 Whilst the works at St Giles Park are expected to be largely complete by 2023, when the proposed scheme is programmed to begin, consideration of potential delays should be giving to the cumulative impacts of both works overlapping and the landscape and visual effects that these two schemes running concurrently may have on the surrounding local area	<p>This has previously been addressed in the Applicant's response to the Examining Authorities First Written Questions BIO 3.14 submitted at Deadline 2 .</p> <p>The St. Giles Park development (otherwise referred to as Cringleford Residential Development) is included in the uncertainty log and shortlist for the cumulative effects assessment (CEA) (ES Chapter 15, <b>(APP-052)</b>). The outcome of the CEA notes the residual cumulative effects during the construction and operational phases of the Scheme with other developments (in this instance St. Giles Park) are not anticipated to contribute beyond that of the effects identified in the preceding environmental statement chapters.</p> <p>With regard to landscaping, ES Chapter 7, Landscape and visual (<b>APP-044</b>) section 7.3.2 states notes the maintaining of a landscape buffer between the A47 trunk road corridor and the growing settlement of</p>



Section Number	Comment	Response
		<p>Cringleford to the east (Policy DM 4.7 of the South Norfolk District Council Development Management Policies Document) a landscape buffer of public open space is included within the masterplan for the current (January 2021) residential development taking place on the western fringes of Cringleford known as St Giles Park.</p>
4.9.2	<p>7.7.6 This paragraph clearly lays out the importance of woodland and park land style trees in the landscape surrounding the scheme. Large losses of this 75 woodland and individual trees will have a detrimental effect on the area both in landscape and visual terms.</p>	<p>ES Chapter 7, Landscape and visual (<b>APP-044</b>) section 7.12 summarises the outcome of the assessment on the local area. Reference is made to the Applicant's response to the Examining Authorities First Written Questions BIO 3.2 for proposed mitigation as detailed on the Environmental Masterplan (<b>APP-123</b>) submitted at Deadline 2.</p>
4.9.2	<p>7.7.8 It will be important that, as identified in this statement, the impact of increased infrastructure within an area identified as a strategic gap between Cringleford and Hethersett and identified as a policy area seeking to protect openness and enhance the southern bypass is thoroughly considered. Whilst there area already extensive highways infrastructure in this area, bunding, embankments, linear planting or other road infrastructure has the potential to severely degrade the openness and landscape "gap" that is vital in the landscape here.</p>	<p>ES Chapter 7, Landscape and visual (<b>APP-044</b>) section 7.3.3 details the importance of maintaining a 'strategic gap/important break' in the vicinity of the Scheme between Hethersett and Cringleford in line with the policies DM 4.5 Landscape Character, DM 4.6 Landscape Setting of Norwich and DM 4.7 Strategic Gaps of the South Norfolk District Council Development Management Policies Document.</p>
4.9.2	<p>7.7.11 The impact on the setting of Thickthorn Hall historic park and garden is concerning, especially the loss of trees including two veterans. Where possible the loss of veteran trees should be avoided, and the scheme designed to allow these important trees to remain in the landscape.</p>	<p>The proposed Scheme design has been through an iterative design process and delivery of the required modern highway standards has necessitated the alignment of the Scheme. As a result of this, removal of two veteran trees (T13 and T14 north of the A11) has been determined as unavoidable.</p> <p>Item B10 of Table 3.1 (Record of Environmental Actions and Commitments) in the Environmental Management Plan (<b>APP-123</b>) notes that all veteran and mature trees to be retained that are within close proximity to the works will be protected with a suitable buffer zone to ensure they are not damaged during the construction phase. This buffer zone will be protected by the use of tree protection barriers. The Arboricultural Method Statement will also be adhered to during</p>

Section Number	Comment	Response
		<p>construction.</p> <p>The same item B10 also notes that any trees removed as part of the works will be relocated to nearby suitable woodland parcels to provide suitable habitat for invertebrates.</p>
4.9.2	7.7.13 We note that a majority of the individual trees identified in the AIA are A grade, and some of those are additionally noted as veteran species. These trees, both A grade and below, form an important part of the wider landscape.	This comment is acknowledged and no response is required from the Applicant.
4.9.2	7.7.20 Whilst minor, Cantley Stream is an important feature within the landscape and should be unaffected where possible by any proposals.	<p>A Case for Scheme (<b>APP-125</b>) outlines the development of the Scheme and the options which were considered.</p> <p>A number of options were considered to maintain the connectivity of Cantley Lane South to the wider network. These options are detailed in Chapter 2 of the Case for the Scheme along with the justification for the chosen option. The proposed Scheme design has been through an iterative process and delivery of the required modern highway standards has necessitated realignment of a section of Cantley Stream and the creation of a wider, standard highway junction at Cantley Lane South (currently a narrow rural lane) to facilitate junction visibility and vehicle manoeuvres.</p>
4.9.2	7.7.21 Details the current road network and the rural character of these roads, particularly noting Cantley Lane South. This raises concerns regarding the link road proposed from B1172 Norwich Road, down to Cantley Lane South, which would have a detrimental impact on the rural nature of this road, both in terms of the introduction of a new junction, but also an increase in traffic. The council has had discussions with Highways England in respect of the justification for this road, which not only raises concerns regarding Cantley Lane South, but also involves the removal of some notable large and veteran trees.	This comment is acknowledged. Please see previous response to veteran trees.

Section Number	Comment	Response
4.9.2	7.7.38 We agree with the conclusions drawn that existing proposals might begin to introduce additional lighting, and that there will therefore be a need for this scheme to minimise any additional lighting of the area and work to retain that gap between rural and urban areas.	This comment is acknowledged and no response is required from the Applicant.
4.9.2	7.7.49 The concurrent construction of St Giles with the Thickthorn Junction proposals should be considered. The extent of this consideration will likely depend on how much work will still be ongoing at St Giles.	This has previously been addressed in the Applicant's relevant representation response (common Response G) ( <b>REP1.004</b> ) and also the Applicant's response to the Examining Authorities First Written Questions BIO 3.14 submitted at Deadline 2 .
4.9.2	7.8.1 Construction compounds should be sited where minimal impacts are likely, for example it would not be appropriate to remove trees to site a compound, which would not need to be removed for the proposed scheme.	<p>No trees will be removed to accommodate construction compound development. Compounds will be sited in appropriate areas to minimise impacts on land.</p> <p>Item B10 of Table 3.1 (Record of Environmental Actions and Commitments) in the Environmental Management Plan (<b>APP-123</b>) notes that all veteran and mature trees to be retained that are within close proximity to the works will be protected with a suitable buffer zone to ensure they are not damaged during the construction phase. This buffer zone will be protected by the use of tree protection barriers. The Arboricultural Method Statement will also be adhered to during construction.</p>
4.9.2	7.9.3 There are extensive losses of landscape features and notable tree losses as a result of this scheme. It will be hard to offer replacements at such scale, but mitigation must be well thought out and the locations carefully considered so as to both minimise the visual impacts of the scheme and minimise the landscape scale impacts on a wider scale.	This has previously been addressed in the Applicant's relevant representation response to RR027 submitted at Deadline 1 and the Applicant's response to the Examining Authorities First Written Questions BIO 3.1 submitted at Deadline 2.
4.9.2	7.10.6 The loss of woodland and large and visually prominent specimens located along Cantley Lane South is of concern, whilst this is noted as an effect during the construction period, this is a long term effect that cannot be easily replaced by the planting of new young trees.	This has previously been addressed in the Applicant's relevant representation response to RR027 submitted at Deadline 1 and the Applicant's response to the Examining Authorities First Written Questions BIO 3.1 submitted at Deadline 2.

Section Number	Comment	Response
4.9.2	7.10.8 Depending on the progress of St Giles Park, it will be important that the haul road proposed in this area does not require the removal of installed landscape buffer. If this element of St Giles Park has already been completed, it would be inappropriate to remove it.	Discussions are ongoing with the developer of the St Giles Park, but no haul road is proposed in that area.
4.9.2	7.10.10 The level of visual disruption for these receptors (R1, R2, FP2, R5, R6 and FP1) is of concern.	ES Chapter 7, Landscape and Visual ( <b>APP-044</b> ) Section 7.10 and 7.12 details the conclusions of the landscape and visual assessment with regard to the receptors noted by NCC.
4.9.2	7.10.21 The disruption at Cantley Lane South is of most concern, it appears that there will be considerable disruption here to the views, tranquility and overall landscape during both construction and operation.	ES Chapter 7, Landscape and Visual ( <b>APP-044</b> ) Section 7.10 and 7.12 details the conclusions of the landscape and visual assessment with regard to the receptors noted by NCC.
4.9.2	7.10.25 -7.10.26 Similar concerns are raised for the footpaths Hethersett FP6 and Cringleford FP4.	ES Chapter 7, Landscape and Visual ( <b>APP-044</b> ) Section 7.10 and 7.12 details the conclusions of the landscape and visual assessment with regard to the receptors noted by NCC.
4.9.2	7.10.31 The scale of loss of vegetation in the landscape, particularly when involving mature woodland and trees, and veteran trees is of concern both in a landscape and visual sense. Wherever possible this should be avoided and if opportunities arrive during the finalising of the design to retain any of these important landscape features they should be utilised.	<p>The proposed Scheme design has been through an iterative design process and delivery of the required modern highway standards has necessitated the alignment of the Scheme. As a result of this, removal of two veteran trees (T13 and T14 north of the A11) has been determined as unavoidable.</p> <p>A layout of existing/replacement planting (including woodland) is presented in the Environmental Masterplan (<b>APP-123</b>). An indicative species list is also included as part of the Environmental Masterplan (<b>APP-123</b>). Specific heights/species are included as a requirement where necessary for mitigation identified in the Environmental Statement. This is noted in the REAC of the EMP (<b>APP-128</b>).</p>

Section Number	Comment	Response
4.9.2	7.10.35 The loss of existing rural character and sense of tranquillity on Cantley Lane South is disappointing, and whilst will be partially restored, this is an irreversible change to the road and the local area. The loss of veteran trees, and mature roadside trees should be avoided where at all possible, where the scheme doesn't allow this and the justification is there, suitable mitigation should be allocated for these loses. Whilst new young trees, cannot go anywhere towards replacing veteran trees, it would be hoped that the scheme can at least plant substantial trees that will in the long-term future offer distinct value to the landscape.	Please refer to the Environmental Masterplan ( <b>APP-123</b> ) for details of tree removal and planting.
4.9.2	7.10.50 – 7.10.55 Whilst it is appreciated by year 15 the effects have been assessed as neutral or slight adverse, the combination of construction effects, plus 10+ years of operational effects are significant, particularly on residential receptors. Where a large adverse visual effect is left at year 15 (locations redacted), this is concerning.	ES Chapter 7, Landscape and Visual ( <b>APP-044</b> ) Section 7.12 details the conclusions of the landscape and visual assessment with regard to the receptors noted by NCC.
4.9.2	7.12.8 We understand the conclusions drawn that the scheme would not result in widespread significant residual visual effects and are limited to a localised impact. Whilst this is detrimental to those living in and using this local area, we understand that under the DMRB LA107 this is considered minor. <b>However, we would consider that the removal of such mature woodland, trees, and veteran trees, the realignment of watercourse and introduction of additional infrastructure into the landscape should be considered with more weight. Particularly where this relates to veteran species which cannot be replaced with mitigation planting.</b>	Sections 7.3 and 7 of ES Chapter detail the methodology by which the landscape and visual assessment was undertaken. The Applicant has designed the proposed Scheme to minimise the loss and impact on trees as much as possible. The proposed Scheme design has been through an iterative process and delivery of the required modern highway standards has necessitated realignment of a section of Cantley Stream and the creation of a wider, standard highway junction at Cantley Lane South (which is currently a narrow rural lane) and the alignment of the A11-A47 link road. As a result of this, removal of two veteran trees (T13 and T14 north of the A11) has been determined as unavoidable. A layout of existing/replacement planting (including woodland) is presented in the Environmental Masterplan ( <b>APP-123</b> ). An indicative species list is also included as part of the Environmental Masterplan ( <b>APP-123</b> ). Specific heights/species are included as a requirement where necessary for mitigation identified in the Environmental Statement. This is noted in the REAC of the EMP ( <b>APP-128</b> ).

## BIODIVERSITY

Section Number	Comment	Response
4.10.1	Scheme Design: Has the scheme been reviewed by the Strategic Design Panel?	<p>Highways England's Strategic Design Panel was set up in 2017 and is intended to focus on strategic input rather than scheme specific details targeting where its expertise, insight and guidance will have most positive impact and wider benefit, such as standards, procurement and evaluation. As such, the Strategic Design Panel is not of direct applicability to the Scheme.</p> <p>The Scheme, in line with "The Road to Good Design" was reviewed by the Applicant's internal design panel, which confirmed it would not be required during the design stages of the Scheme as the design was not considered complex or contentious. There are no plans to engage a panel for the remaining stages of the Scheme.</p>
4.10.1	<p>Environmental Statement - Chapter 8: Biodiversity: There are several inconsistencies in that Chapter 8 does not accurately reflect the conclusions and/or mitigation recommendations made within the ecological reports, and the mitigation measures proposed are not always specific to the predicated impacts (or proven to be effective). Equally there are also inconsistencies between Chapter 8 and the Record of Environmental Actions and Commitments (REAC). Further details (examples) are provided although it is not exhaustive. General Comments in rows below.</p>	This comment is acknowledged and no response is required from the Applicant.

Section Number	Comment	Response
4.10.1	<p>The Zone of Influence (ZOI) should be evidence based and refer to relevant guidelines. For example, it would be expected that the bat Core Sustenance Zone (CSZ) would be used.</p> <p>The CSZ was designed to indicate:</p> <ul style="list-style-type: none"> <li>• The area surrounding a communal roost within which development work might impact the commuting and foraging habitat of bats using that roost</li> <li>• The area within which it might be necessary to ensure no net reduction in the quality and availability of foraging habitat for the colony, and CSZ are also important when considering/designing Biodiversity Net Gain see <a href="#">BatSpecies-Core-Sustenance-Zones-and-Habitats-for-Biodiversity-NetGain.pdf</a> LD 118 Biodiversity Design provides guidance on species specific approaches to surveying. For example, for badger surveys 'a corridor of 500m (250m either side of the centre line of the road is usually sufficient'. <b>Where deviation from guidelines is provided this should be justified.</b></li> </ul>	<p>Bat surveys undertaken in 2020, which specifically targeted barbastelle, confirmed presence of this species with a single pass during the crossing point survey of crossing point one (22.07.2020). Barbastelle calls were also recorded during a dusk emergence survey on 05.08.2020, though it was not recorded as emerging from a roost (Appendix 8.8 Bat roost and crossing point survey report <b>(APP-094)</b>).</p> <p>The low number of recordings from targeted survey effort following guidance would indicate limited use of this area by barbastelle though they are present. Barbastelle have a CSZ of 6km and a maximum home range of 20km (Zeale, M., Davidson-Watts, I., and Jones, H. (2012) Home range use and habitat selection by barbastelle bats (<i>Barbastella barbastellus</i>): Implications for conservation. <i>Journal of Mammalogy</i>. 93(4) pp. 1110-1118). The large barbastelle colony at Lenwade, Norfolk is within this 20km range at a distance of ~14km therefore barbastelle passing through the site could be from this colony, though at 14km distance it is unlikely that significant number from this colony will be using the area.</p> <p>Paston Great Barn SAC which is designated for its barbastelle colony is located ~32 km from the site, so it is unlikely that barbastelle from this colony will pass through the site. Barbastelle will commute nightly across a home range of up to 20km from the roost. Known large colonies in Norfolk are those at Lenswade and at Paston Great Barn, the latter of which is within 20km so may be the roost from which recorded barbastelle are commuting, or alternatively the recorded barbastelle could be individuals from smaller roosts located elsewhere. Without undertaking radio tracking or GPS tracking of bats from site back to their roosts, which is considered to be impractical and excessive for the number of barbastelle recorded on site, it is not possible to accurately ascertain the commuting route and roost location.</p> <p>Barbastelle will commute nightly across a home range of up to 20km from the roost. Known large colonies in Norfolk are those at Lenswade and at Paston Great Barn, the latter of which is within 20km so may be the roost from which recorded barbastelle are commuting, or alternatively the recorded barbastelle could be individuals from smaller roosts located elsewhere. Without undertaking radio tracking or GPS tracking of bats from site back to their roosts, which is</p>

Section Number	Comment	Response
		considered to be impractical and excessive for the number of barbastelle recorded on site, it is not possible to accurately ascertain the commuting route and roost location.
4.10.1	Paragraph 99 of the ODPM Circular 06/2005 advises that the presence or otherwise of protected species, and the extent to which they might be affected by the proposed development, must be established before consent is granted. Therefore, if there is a reasonable likelihood of protected species being present and affected by the development, the surveys should be completed and any necessary measures to protect the species should be in place before the permission is granted. <b>It is therefore recommended that where surveys are outstanding, or out of date, they are undertaken and the results used to update the Environmental Statement (eg see para 8.5.3, 8.7, of Chapter 8, and para 5.3.7 of the Bat Roost and Crossing Point Survey Report).</b>	A survey schedule of all required pre-construction surveys is being prepared and will be submitted at Deadline 4.
4.10.1	Similarly, where the red line site boundary has been amended, ecological surveys should be updated accordingly. For example, the survey area for the botanical surveys is substantially different from the order limit boundary submitted to PINS.	The Order limit boundary was confirmed early 2021. Previous ecology surveys undertaken in 2019 and 2020 to inform the environmental assessment utilised the Scoping boundary which covered wider area.
4.10.1	It is not clear why documents have been heavily redacted. Except for badger surveys, the information contained within is not sensitive.	Redactions to documents have been made by the Planning Inspectorate.



Section Number	Comment	Response
4.10.1	Data should be passed on to Norfolk Biodiversity information Service as the earliest opportunity.	The Applicant will endeavour to share data as soon as it has been collated. Section 5.3 of the EMP ( <b>APP-128</b> ) details the process via which environmental data is collated and submitted during Stage 6 (Construction) and Stage 7 (Operation).
4.10.1	Unit 9 has been identified within the botanical surveys, as an area of potential ancient woodland which will be impacted by the scheme. As this has been omitted from subsequent assessments (Chapter 8) it is not clear if this has been considered and measures taken to avoid impacting irreplaceable habitat.	The Multi Agency Geographic Information for the Countryside (MAGIC) website, which is managed by Natural England (and the Forestry Commission is a partner organisation), does not show Cantley Wood (referenced as W2 in the Arboricultural Impact Assessment) as being ancient woodland.
4.10.1	Paragraph 5.32 of the National Policy Statement National Networks (NPSNN) states that 'Aged or veteran trees found outside ancient woodland are particularly valuable for biodiversity and their loss should be avoided'. Where veteran trees would be affected by development proposals, the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons for this.	The proposed Scheme design has been through an iterative design process and delivery of the required modern highway standards has necessitated the alignment of the Scheme.. As a result of this, removal of two veteran trees (T13 and T14 north of the A11) has been determined as unavoidable.  Item B10 of Table 3.1 (Record of Environmental Actions and Commitments) in the Environmental Management Plan ( <b>APP-123</b> ) notes that any trees removed as part of the works will be relocated to nearby suitable woodland parcels to provide suitable habitat for invertebrates.
4.10.1	As per comments made in the scoping opinion (TR10037-000010_THIC Scoping Opinion), mitigation measures in Chapter 8 should be described in full, and in detail. Evidence of the effectiveness of mitigation should be provided, and effectiveness defined.	The Applicant notes that Tables 8-9 and 8-10 of ES Chapter 8 ( <b>APP-045</b> ) details the proposed mitigation during construction and operation of the Scheme.  There will be an Landscape and Ecology Management Plan (LEMP) produced for the scheme as part of the EMP ( <b>APP-128</b> ), secured via dDCO Requirement 5 ( <b>APP-017</b> ). Mitigation for bats, including barbastelle will be included in this document.
4.10.1	Scoping opinion response (Ref 25) notes mortality (from collision risk) should be assessed in the Environmental Statement. Collision risk has been identified as an impact during construction (e.g. for great crested newts and bats) but mitigation has not specifically/clearly addressed the risk.	The Applicant notes that Tables 8-9 and 8-10 of ES Chapter 8 ( <b>APP-045</b> ) details the proposed mitigation during construction and operation of the Scheme.  There will be an Landscape and Ecology Management Plan (LEMP) produced for the scheme as part of the EMP ( <b>APP-128</b> ), secured via dDCO Requirement 5 ( <b>APP-017</b> ). Mitigation for bats, including barbastelle will be included in this document.

Section Number	Comment	Response
4.10.1	Para 8.4.15 refers to the DEFRA Biodiversity Metric 2.0. The calculations should be available for examination. Table 8-11 (page 51) 'Habitat types and areas to be remediated or enhanced' provides an indication but does the proposed development result in an overall biodiversity net gain of and if so, to what extent?	There is currently no mandated framework for calculating and reporting on biodiversity net gain. Any such calculation is subject to the commencement of the Environment Act and its associated secondary legislation, which is expected to set out the SoS biodiversity metric and methodology. Any calculation using existing Biodiversity Metric approaches is still subject to variation. For this reason, the Applicant cannot commit to providing overall BNG or indicate the extent of BNG
4.10.1	Areas where enhancements are to be secured are not shown on any of the plans. Land identified for mitigation and enhancements should consider future housing allocation sites eg the Greater Norwich Local Plan	Land identified for mitigation has been included within the Order limits and is shown on the Environmental Masterplan ( <b>APP-123</b> ).
4.10.1	It is recommended that NCC is contacted again at the end of the 2021 survey season as surveys associated with the NWL are ongoing (2020 surveys for the NDR will be available online in due course). Please also note that Dr Charlotte Packman has been undertaking radio tracking surveys of the barbastelles in the NWL area. She should also be contacted for data. NCC understands that Dr Charlotte Packman believes that there 81 is a nationally significant breeding barbastelle colony of over 150 bats in this area	This has previously been addressed in the Applicant's response to the Relevant Representations (Common Response I) ( <b>REP1.004</b> )
4.10.1	To date, however, no survey data has been shared with NCC or otherwise published by Dr Packman to provide supporting evidence which would substantiate Dr Packman's belief that there is a nationally significant breeding barbastelle bat colony in the area. Currently, the area is not formally designated as an SSSI or SAC on the basis of the presence of barbastelle bats, nor has it been selected for assessment by the Joint Nature Conservation Committee and, as such, it does not have the status of a notified SSSI or a possible SAC (pSAC). <b>The Planning Inspectorate, as a public body, has a duty under Part 3, Section 40 of the Natural Environment and Rural Communities Act 2006, to have regard ...to the purpose of conserving biodiversity, to consider</b>	Please see previous response

Section Number	Comment	Response
	impacts of the road scheme, including in relation to this asserted colony.	
4.10.1	In section 8.7.8 Priority habitats identified under the Natural Environment and Rural Communities Act 2006 (NERC Act) are identified as national importance. No reference is given to Priority Species that are in the area	Priority species and their importance are listed individually in Section 8.7 of ES Chapter 8, Biodiversity ( <b>APP-045</b> )
4.10.1	Para 8.7.53 states that all trees within 50m of the DCO boundary have had been subject to updated PRAs in 2020 but this contradicts para 5.3.7 of the Bat Roost and Crossing Point Survey Report which states that Preliminary Roost Assessment (PRA) surveys of a tree is required in 2021.	The cumulative effects assessment only considered non statutory bat roosts within 50m of the Order Limits. This is because 50m is considered to be a suitable zone of influence of the Scheme on local bat populations, with the exception of crossing points and commuting and foraging routes which are then surveyed separately to bat roosts. Results of bat surveys undertaken as part of the environmental assessment are included in ES Chapter 8.8 Bat roost and crossing point survey report ( <b>APP-094</b> )-Morton-on-the-Hill, where NCC states the colony is located, is several kilometres north of the nearest point on the Scheme Order Limits.
4.10.1	Para 8.7.5 does not elaborate on how areas of 'high' bat activity was quantified.	Para 8.7.5 in ES Chapter 8, Biodiversity ( <b>APP-045</b> ) refers to Easton Chalk Pit SSSI.
4.10.1	Table 8-9. (page 42) great crested newt. Notes that attenuation ponds are proposed as enhancement for great crested newts but it is not clear whether they will contain standing water, and for how long.	Activities relating to the design of the attenuation ponds will be undertaken during detailed design, which is secured via the dCO Requirement 3.

Section Number	Comment	Response
4.10.1	Also, Table 8-12 (page 56) notes that the attenuation ponds are designed to reduce pollution entering nearby water courses, and as such would not provide suitable enhancement for great crested newts.	This comment is acknowledged and no response is required from the Applicant.
4.10.1	There is no mention of enhancement of SuDS/attenuation ponds for great crested newt this in the Record of Environmental Actions and Commitments (REAC) in the Environmental Management Plan.	Table 8-9 in ES Chapter 8, Biodiversity ( <b>APP-045</b> ) details proposed mitigation for GCN, should they be present within the Order limits
4.10.1	Table 8-9 notes the translocation of 5m of important hedgerow but does not explain where this will be translocated to	Item B4 of Table 3-1 (REAC) in the Environmental Management Plan ( <b>APP-128</b> ) details that locations of important hedgerow will be provided in the Landscape and Ecology Management plan (LEMP) to be produced during detailed design. This is secured via Requirement 4 of the dDCO.
4.10.1	Table 8-9 (page 39) notes that a UKPN cable is being installed within the CWS. It is not clear which CWS is referred to and this has not been previously mentioned in Chapter 8 or Chapter 15 – Cumulative Effects Assessment. Note: it is mentioned in B11 Table 3-1: Record of environmental actions and commitments	Table 8-9 of ES Chapter 8, Biodiversity ( <b>APP-045</b> ), column two notes the CWS in question is Meadow Farm Meadows CWS.
4.10.1	Table 8-12 notes this will require a 6m wide trench but no mention is made to the area required for construction of this trench.	The required working area for utilities diversions has been allowed for in the Order limits.
4.10.1	Meadow Farm Meadows county wildlife site was not correctly mapped within the botanical surveys report.	Only part of the CWS was surveyed as part of the BOTany surveys undertaken and the map only shows the extent surveyed.
4.10.1	Table 8-9 (page 40) makes no mention of the potential ancient woodland within unit N. It is not clear if measures have been taken to avoid impacting this area.	Unit N detailed in ES Appendix 8.1, Botanical Report ( <b>APP-087</b> ) is noted as potential ancient woodland, however the Multi Agency Geographic Information for the Countryside (MAGIC) website does not show Unit N as being ancient woodland
4.10.1	Table 8-9 Breeding birds – no mention is made of the ten skylark plots to be created in surrounding fields to mitigate for the loss of habitat, as recommended within the Breeding Bird, Hobby and Barn Owl Report.	Table 3-1 (REAC) in the EMP ( <b>APP-128</b> ) will be updated for Deadline 4 to reflect the need or not for Skylark plots. The outcome of the environmental assessment in ES Chapter 8 ( <b>APP-045</b> ) does not change.

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4.10.1	Table 8-10 (page 42). Great crested newts (GCN). Surveys for GCN had not been completed at the time of submission but should now (May 2021) have been nearly completed. It is recommended that the ES is updated to include the results of the surveys. If surveys have not been completed it is not known if this species is present and affected by works, or if a licence will be required. The presence (or absence) of GCN is a material consideration.	This has been addressed in the Applicant's response to the Examiner's First Written Questions GC 4.3 submitted at Deadline 2.
4.10.1	Table 8-10 (page 49). Within this table details of the bat mitigation measures are not provided in detail. Eg no mention is made of the proposed 3m high environmental barrier for bats mentioned in B5 of the REAC (note it is shown as 3.5 m on sheet 4 of 5 of the Environmental Masterplan , or clusters of trees to guide bats towards the bat highway crossing points (see Environmental Masterplan sheet 4 of 5)	Table 8-9 of the ES Chapter 8, Biodiversity, column 3, final paragraph under the entry 'bats' notes the inclusion of the environmental barrier.
4.10.1	The assessment must detail all mitigation measures proposed. For example in Tables 8-9 and 8-10 there is no mention of post and wire mesh fence to 'facilitate a known bat flight path' (see para 2.4.26 of Chapter 2), (and Environmental Masterplan) and it notes that Cantley Stream will be re-aligned but does not provide details of how much of the stream will be re-aligned	Table 3-1 (REAC) in the EMP ( <b>APP-128</b> ) contains all mitigation measures for the Scheme secured via Requirement 4 of the dDCO.  The length of Cantley Stream proposed for realignment is referenced in ES Chapter 13 ( <b>APP-050</b> ) Section 13.8.22. The final length of Cantley Stream to be realigned will be determined during detailed design secured via Requirement 3 of the dDCO.
4.10.1	Paragraph 4.5 of LD 118 notes that 'only mitigation measures that are effective and proven shall be included in the project design' and paragraph 4.6 notes that 'where innovative or unproven mitigation measures are proposed, evidence of the consideration of uncertainty...shall be submitted.	This comment is acknowledged and no response is required from the Applicant.
4.10.1	No evidence supporting the efficacy of mitigation measures, for example, the 'environmental barrier' for bats has been provided.	The entry for Bats in Table 8-9 in ES Chapter 8, Biodiversity ( <b>APP-045</b> ) notes the reason for the presence of the environmental barrier.

Section Number	Comment	Response
4.10.1	Please note that CEDR (2016) (Conference of European Directors of Roads) concluded that hop-overs are not recommended as effective mitigation measures for Daubenton's bats, soprano pipistrelles and other species with similar flight behaviour (during the experiment temporary barrier screens 20m long and 4m high were placed across the bat commuting route – it is not clear how long the proposed bat fence would be).	This comment is acknowledged and no response is required from the Applicant.
4.10.1	The applicant should also define what effective means. For example, Berthinussen & Altringham (2015) note that a mitigation measure should only be characterised as effective if at least 90% of bats are using the structure to cross the road safely and the number of bats crossing the road transect has not declined substantially. Consideration should also be given to how soon mitigation measures would expect to be effective. A delay would perhaps be expected as vegetation matures. Please note that there may be annual variation in efficacy of mitigation. For example, in one year 50% of bats might cross at a safe height, and 95% another year	Table 6-1 in the EMP ( <b>APP-128</b> ) summarises environmental monitoring activities contained within Table 3-1 (REAC). Table 6-1 contains entry B5 (protection of bats and bat roosts) which notes ' <i>species to be licensed, will be monitored as part of the respective licence for the requisite length of time after construction completion</i> ' Reference is also made to the Applicant's response to the relevant representations (Common Response F) ( <b>REP1.004</b> ) submitted at Deadline 1.
4.10.1	However, mitigation measure cannot be considered in isolation.	This comment is acknowledged and no response is required from the Applicant.
4.10.1	The Arboricultural Impact Assessment notes that tree group G27, G1, G3, and an unlabelled tree group on the western side (see image) will be removed, equating to a loss of around 85m of linear hedge/feature (see below). The red areas circled in blue highlight the areas of vegetation to be removed along Cantley Lane.	This comment is acknowledged and no response is required from the Applicant.
4.10.1	As alluded to within the bat report, Cantley Lane is an important commuting and foraging corridor for bats. Surveys undertaken in support of 2017/2120 9south Norfolk Council) show that it is of high value to bats (see image). See image: (taken from 2020/0499).	This comment is acknowledged and no response is required from the Applicant.

Section Number	Comment	Response
4.10.1	<p>The loss of substantial areas of vegetation on both sides of the A47, along the line of Cantley Lane, as well as that along the A47 to the south, shown on drawing no. 1050831-SWETHI-AIAP (in the Arboricultural Impact Assessment), will likely result in the loss of this commuting route across the road (a circa 170m gap), and/or increased risk of collision (no evidence has been provided to suggest that the proposed mitigation will be effective.</p> <p>Vegetation also provides bats with shelter from wind and protection from predators. The vegetation also provides a buffer for road noise and head lights.</p>	<p>Tables 8-9 and 8-10 of ES Chapter 8 (<b>APP-045</b>) along with Item B5 in Table 3-1 (REAC) of the EMP (<b>APP-128</b>) and the Environmental MASTerplan (<b>APP-123</b>) details the proposed mitigation for bats.</p>
4.10.1	<p>Page 53: We agree that habitat loss can, in time, be mitigated for by additional tree planting. However, we disagree that severance can also be mitigated for in this way. Parallel planting along the road does not mitigate severance caused by road widening.</p>	<p>Tables 8-9 and 8-10 of ES Chapter 8 (<b>APP-045</b>) along with Item B5 in Table 3-1 (REAC) of the EMP (<b>APP-128</b>) details the proposed mitigation for bats. Item B5 specifically notes the inclusion of an environmental barrier to</p>
4.10.1	<p>Table 8-10 Water vole (page 53). No details are provided regarding the:</p> <ul style="list-style-type: none"> <li>o Area required to mitigate for habitat losses,</li> <li>o Area of habitat to be created as enhancement,</li> </ul>	<p>Activities relating to the habitat creation details will be undertaken during detailed design, which is secured via the dCO Requirement 3.</p>
4.10.1	<p>Details of species rich grassland is shown within the Environmental Masterplan but this is shown within proximity to the road. Where will barn owl habitat be created?</p>	<p>Appendix B.5 of the Environmental Management Plan (EMP) (<b>APP-128</b>) 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 Project. The commitment to deliver the LEMP will be secured through Requirement 4 of the dDCO (<b>APP-017</b>)</p>
4.10.1	<p>Table 8-11 Details of losses or gains in aquatic habitats are not provided</p>	<p>Appendix B.5 of the Environmental Management Plan (EMP) (<b>APP-128</b>) 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</p>

Section Number	Comment	Response
		<p>of the Project. The commitment to deliver the LEMP will be secured through Requirement 4 of the dDCO (<b>APP-017</b>)</p> <p>There is currently no mandated framework for calculating and reporting on biodiversity net gain (BNG). Any such calculation is subject to the commencement of the Environment Act and its associated secondary legislation, which is expected to set out the SoS biodiversity metric and methodology. Any calculation using existing Biodiversity Metric approaches is still subject to variation. For this reason, the Applicant cannot commit to providing overall BNG or indicate the extent of BNG.</p>
4.10.1	<p>Table 8-12. Consideration should be given not using topsoil on the verges and in preference to a generic seed mix we would recommend that locally harvested wildflowers (e.g. from a local CWS) is used in the creation of species rich grassland.</p>	<p>The Applicant will develop the detailed Landscape and Ecology Management Plan (LEMP), which forms Appendix B.5 of the EMP to be secured through dDCO Requirement 4 'Environmental Management Plan'</p>
4.10.1	<p>The survey area (see figure 1a, page 9) differs from the current DCO redline site boundary (see General Arrangements Plan).</p>	<p>The Order limit was confirmed early 2021. Previous ecology surveys undertaken in 2019 and 2020 to inform the environmental assessment utilised the Scoping boundary, which covered wider area</p>
4.10.1	<p>It is noted that Areas 'G' and 'I' are of district value, as is Meadow Farm county wildlife site (CWS).</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
4.10.1	<p>Hedgerows H2, H3, and H6 likely to be of ecological importance under the Hedgerow Regulations 1997 although it is not clear which hedges these refer to, or which hedges were surveyed as no plan showing, for example, H1, H2, H3... etc. has been provided. The Volume 2 2.12 Hedgerow Plans document does not use the same system (H1...H2) to identify hedges.</p>	<p>ES Appendix 8.1, Botanical Survey Report (<b>APP-087</b>), Figures 2a to 2f show the hedgerows surveyed.</p> <p>The Hedgerow Plans (<b>APP-015</b>) provided will be updated to provide the correct hedgerow references by Deadline 4.</p>
4.10.1	<p>Para 7.6 notes that there will be a direct loss of an area of Meadow Farm CWS to facilitate construction of the slip road and drainage ditch however in Chapter 8 (Table 8-7) it notes that the impact is temporary. It is not clear what the impacts will be and if there will be a permanent loss of CWS</p>	<p>The Applicant notes that Table 8-7 in ES Chapter 8, Biodiversity (<b>APP-045</b>) is correct in noting the impacts to the CWS are temporary. Chapter 8 Section 8.12.6 also concludes a neutral effect on the CWS from the Scheme.</p>




Section Number	Comment	Response
4.10.1	Work No. 45 (environmental mitigation) is located within Meadow Farm CWS (see image) but this does not appear to have been identified by the applicant. It is not clear what works are planned in this area.	This has been addressed in the Applicant's response to the first examination questions (FRD1.1) submitted at Deadline 2.
4.10.1	Work Nos. 6 and 40 may also impact Meadow Farm CWS. Work No 49 abuts Meadow Farm CWS. Work No. 42 directly impacts Meadow Farm CWS and is associated within utilities diversion – it is not clear if this is associated with the UKPN cable route.	Work No. 42 is the diversion of a 132kv electricity cable north east of the A47, this apparatus is owned by UKPN.
4.10.1	Meadow Farm CWS is only shown to the right of the A47 (top image pg 88). However, it extends to the left of the A47 as shown (bottom image, pg 88). This will affect the impact assessment and mitigation requirements.	The impact of the Scheme on County Wildlife Sites within 2km has been assessed in ES Chapter 8, Biodiversity ( <b>APP-045</b> ) section 8.12.6 which concludes a neutral effect from the Scheme on all County Wildlife Sites.
4.10.1	Para 7.6 also notes 'The southern edge of Area N, a priority habitat and potentially ancient woodland (present since at least 1840) will be impacted by a new road. This will be an intermediate impact on this feature. Mitigation is advised' the potential presence of ancient woodland is not mentioned elsewhere and Chapter 8 only refers to veteran trees on the ancient woodland inventory (para 8.7.14) It should be established if this woodland is ancient and the scheme redesigned to avoid this area as recommended in section 8 of the botanical 88 report. It is noted that this is not reflected in para 6.1 which assigns area N as of local value only.	The Multi Agency Geographic Information for the Countryside (MAGIC) website, which is managed by Natural England (and the Forestry Commission is a partner organisation), does not show Cantley Wood (referenced as W2 in the Arboricultural Impact Assessment) as being ancient woodland.
4.10.1	Sampling points for the 2020 were chosen based on surveys undertaken in 2017. <b>It is not clear how the 2017 surveys locations were identified.</b> For example, the surveys area represents only part of the order limit boundary.	Section 8.7 of ES Chapter 8 ( <b>APP-045</b> ) details the 2016 and 2017 baseline information was gathered via desk top assessment and extended phase 1 habitat survey information for the Stage 2 Options Assessment for the Scheme. The data was subsequently updated in 2017 and again in 2019 during Phase 2 surveys to provide updates to the existing information and additional surveys undertaken based following the Scoping Opinion.  Surveys undertaken during the time period noted above were based on the Scoping Boundary for the Scheme that was available at the time. The boundary has subsequently been refined to the Order limits submitted as part of the DCO

Section Number	Comment	Response
		application.
4.10.1	Impacts from loss of veteran oak trees on species of conservation concern including nationally rare <i>Quedius dilatatus</i> and <i>Aulonothroscus brevicollis</i> . It is not clear how this will be mitigated.	Table 8-12 of ES chapter 8, Biodiversity ( <b>APP-045</b> ) details proposals for removal of trees.
4.10.1	Surveys were undertaken in 2017 (AECOM) and in 2020. Sampling points in 2020 were as previously used in 2017. It is not clear how the sampling points were identified in 2017 or if they are representative.	Please see the Applicant's previous response to sampling points above.
4.10.1	Please note that the Great Crested Newt Habitat Suitability Index Advice Note from Amphibian and Reptile Groups of UK (ARG UK) states that the Habitat Suitability Index (HSI) 'is not a substitute for newt surveys'. It is not a predictor of the likely presence or absence of this species. This view is also supported by the National Amphibian and Reptile Recording Scheme (NARRS)	This comment is acknowledged and no response is required from the Applicant.
4.10.1	Please also note that eDNA surveys only provides presence or absent data. It does not provide information on populations, required in order to apply for a Protected Species mitigation licence from Natural England. If the applicant proposed to apply to the DLL scheme the IPROC should be submitted to PINS.	This comment is acknowledged and no response is required from the Applicant.
4.10.1	If great crested newts are present it would be expected that gullies are not used to prevent newts becoming trapped.	If GCN are present, the appropriate mitigation measures will be implemented. Please see the Applicant's response to the Examiner's First Written Questions, GC 4.3 submitted at Deadline 2.
4.10.1	No compensatory habitat is proposed for reptiles found to the north of the A11 but it is noted that a mitigation area is shown on the Environmental 89 Masterplan sheet 4 of 5 to the south. Given that the reptiles were recorded to the north of the site, and the A11 will act as a potential barrier to movement the efficacy of this mitigation area is queried.	The Applicant has provided mitigation, this is set out in Chapter 8 ( <b>APP-045</b> ) and Item B8 in Table 3-1 of the REAC (EMP. <b>APP-128</b> )

Section Number	Comment	Response
4.10.1	It is not clear what the survey area was for the barn owl survey (para 5.22 only notes that sites identified by AECOM 2017 were surveyed). Chapter 15 -Cumulative Effects Assessment notes that this was 1.5 km of the proposed scheme. This should be clarified.	Section 8.7.46 of ES Chapter 8, Biodiversity ( <b>APP-045</b> ) states that ' <i>all buildings which might support breeding barn own within 1.5km of the study area were considered</i> '.
4.10.1	Paragraph 7.3.3 Please note that barn owl boxes must be placed no closer than 1.5km from the road (Shawyer, 2011: 3 (Shawyer, C.R., 2011. Barn Owl Tyto alba Survey Methodology and Techniques for use in Ecological Assessment: Developing Best Practice in Survey and Reporting. IEEM, Winchester)) Consideration will need to be given to where compensatory habitat will be provided so as to avoid potential for collision	Appendix B.5 of the Environmental Management Plan (EMP) ( <b>APP-128</b> ) 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, of the landscape and ecological mitigation and compensation features of the Project. The commitment to deliver the LEMP will be secured through Requirement 4 of the dDCO ( <b>APP-017</b> )
4.10.1	The Scottish Biodiversity List (2012) is not relevant to this scheme	Appendix 8.7, Wintering Bird Report ( <b>APP-093</b> ) will be updated and submitted at Deadline 4.
4.10.1	The 6.3 Environmental Statement Appendices Appendix 8.6 Breeding bird, hobby and barn owl survey report notes a brown long-eared bat feeding roost is present at Site 1 - Metal Shack (para 7.2.1). This should be mentioned in the bat report.	Appendix 8.8, Bat roost and Crossing Point Survey Report ( <b>APP-094</b> ) will be updated at Deadline 4 to include the sighting of the brown long eared bat feeding roost present at Site 1. The outcome of the environmental assessment does not change.
4.10.1	Additional surveys of potential holt locations required	An otter survey was undertaken in October 2020 and no further potential holts were identified. Pre-construction otter surveys will be scheduled to take place in 2022.
	Habitat enhancement for water voles is shown on the Environmental Masterplan	This comment is acknowledged and no response is required from the Applicant.

Section Number	Comment	Response
4.10.1	Standing advice for badgers notes that when determining if setts are in use they should be monitored over an extended period of time e.g. up to 4 weeks. The surveys do not conform to standing advice.	The Applicant notes that badger survey dates as detailed in Appendix 8.11 the Confidential Badger Survey Report ( <b>APP-097</b> ) were undertaken across a period of three weeks, therefore conforms to standing advice.
4.10.1	4.1.1 and 4.1.2 notes that the sett is 'partly used' but in 5.1.1. it contradicts this by saying 'none of the setts...were found to be currently in use'. It is not clear if the sett is active.	Section 4.1.3 of ES Appendix 8.11, Confidential Badger Survey Report ( <b>APP-097</b> ) notes ' <i>These setts did not display evidence of current use by badgers but were classified as partially used as they could easily be reused if required</i> '
4.10.1	It is proposed that lighting will be designed will backlight shields (see pages 52, 53, 54) and LED bulbs to reduce light spill. <b>Please note that the luminaires proposed in the lighting proposal PHILIPS LUMA BGP 704 TYPE; LUMA BGP705 may not be suitable for shields. This should be checked with the manufacturer.</b>	Proposed lighting will be confirmed during detailed design, secured via Requirement 3 of dDCO.
4.10.1	It would be beneficial to include a plan showing what the lighting scheme will look like at night (with contours).	The extent of the proposed lighting is shown in Annex A of Appendix 7.7 of Chapter 7 of the Environmental Statement ( <b>APP- 086</b> ).
4.10.1	<b>Environmental Statement Report to inform Habitats Regulations Assessment:</b> Natural England have been involved with preparation of the HRA, and agreed with the conclusions of the Draft HRA, in November 2020.	This comment is acknowledged and no response is required from the Applicant.
4.10.1	We broadly agree with the conclusions but would note that NCC understands that Dr Charlotte Packman believes that there is a nationally significant breeding barbastelle colony of over 150 bats in the area. Currently, the area is not formally designated as a SSSI or SAC on the basis of the presence of barbastelle bats, nor has it been selected for assessment by the Joint Nature Conservation Committee and, as such, it does not have the status of a notified SSSI or a possible SAC (pSAC).	This has previously been addressed in the Applicant's response to the relevant representations, Common Response I ( <b>REP1.004</b> )

Section Number	Comment	Response
4.10.1	Para 3.3.2 notes that otter surveys were undertaken in 2016, 2018 and 2020. This differs from the survey information provided in Appendix 8.9 Otter and water vole report, which notes that a Phase 1 surveys was undertaken in 2016 (see para 2.1.2).	Reference is made to para 2.1.2 of Appendix 8.9, Otter and Water Vole Report ( <b>APP-095</b> ) which details that an extended Phase 1 survey of habitats was undertaken within 100m of the Scheme which identified potential habitat on site for otter and water vole and recommended that otter and water vole were assessed as potential constraints to the Scheme.
4.10.1	Para 3.3.2 states botanical surveys were undertaken in 2016 although Appendix 8.1 – Botanical Survey Report notes that the botanical surveys were undertaken in 2017 (chapter 2), and 2020 (see para 4.3). It is not clear if the Phase 1 surveys undertaken in 2016 comprised full botanical and otter surveys.	The Applicant makes reference to Appendix 8.1, Botanical Survey Report) Section 2 (second paragraph) that notes the previous 2017 botany survey was based on a Phase 1 Habitat Survey completed in 2016.
4.10.1	Chapter 3 considers in combination effects. The reader is directed to ES Chapter 15 (Cumulative effects assessment) (TR010037/APP/6.1). For the assessment of cumulative effects and the list of the proposed developments. This information should be provided within the HRA.	The Applicant will provide an updated HRA by Deadline 4.
4.10.1	The HRA is a multi-stage process which helps determine Likely Significant Effects (LSE) and (where appropriate) assess adverse effects on the integrity of an NSN: human and heritage receptors are not pertinent (see 3.4.4).	This comment is acknowledged and no response is required from the Applicant.
4.10.1	Para 3.4.8 (below) - It is not clear why reference has been made to Bechstein bats as this species is not present in Norfolk. We (the Natural 91 Environment Team) were consulted in January 2021 with regards to the Long List. During this consultation we queried the use of a 2km CEA ZOI, suggesting the Core Sustenance Zones of bats is used. No mention was made to Bechstein bats.	This comment is acknowledged and no response is required from the Applicant.
4.10.1	Schedule 8, part 2 refers to the removal of important hedgerows (H3 and H4). In Chapter 8 (Page 40) it states that 5m of a section of important hedge will be lost. It is not clear how many metres of important hedge will be lost (Norfolk County Council has been unable to locate a plan	The Hedgerow plan was submitted as part of the Application ( <b>APP-015</b> ). Reference is made to Sheet 3 of 7 in this document which notes the section of important hedge to be removed.

Section Number	Comment	Response
	<p>showing where these hedges are).</p>	
<p>4.10.1</p>	<p>It is not clear what the 'ecological transects' (see below) relate too – for example they do not represent transects undertaken for breeding bird, or bat surveys.</p> <p>Volume 6 6.2 Environmental Statement Figures 5.5 – 5.8:</p> <ul style="list-style-type: none"> <li>It is not clear what the 'ecological transects' (see below) relate too – for example they do not represent transects undertaken for breeding bird, or bat surveys.</li> </ul> 	<p>The Applicant makes reference to Figures 5.5 - 5.8 (APP-056) and sections 5.4.37 to 5.4.39 of ES Chapter 5, Air quality (APP-042) which notes the transects in question are related to air quality assessment of ecological designated sites sensitive to nitrogen (N) deposition.</p>
<p>4.10.1</p>	<p>[The REAC]          Should accurately reflect recommendations made within the ecology report, and chapter 8.</p>	<p>The Applicant acknowledges this comment and notes any updates identified to the REAC in the EMP (APP-128) that have been identified as part of the Applicant's response to the Examiners First Written Questions, Written Representations and Local Impact Reports will be provided at Deadline 4.</p>
<p>4.10.1</p>	<p>The EMP does not mention design of attenuation ponds for great crested newts (only mentions SuDS on page 42) this is also not shown on the Environmental masterplan.</p>	<p>If confirmatory surveys to be undertaken in 2022 determine GCN are present on site, mitigation will be reflected in the detailed design of the Scheme.</p>

Section Number	Comment	Response
4.10.1	Notes a Landscape and ecology management plan (LEMP) will be prepared.	The LEMP will describe the proposed management and monitoring, of the landscape and ecological mitigation and compensation features of the Project. The commitment to deliver the LEMP will be secured through Requirement 4 of the dDCO ( <b>APP-017</b> )
4.10.1	Table xx B1 please can the reports be sent to neti@norfolk.gov.uk.	The Applicant will endeavour to share any reports requested.
4.10.1	B5 notes that trees will be retained at the end of Cantley Lane south – this is contrary to details within the AIA.	The Environmental Masterplan ( <b>APP-123</b> ) details the trees and vegetation to be retained, including tree group G5 and tree T7 at the end of Cantley Lane South.
4.10.1	Table 4-1 should also mention that the need for a great crested newt licence needs to be confirmed following completion of surveys.	An updated Table 4-1 in the EMP ( <b>APP-128</b> ) will be provided at Deadline 4.
4.10.1	Table 6.1. o B5 – Monitoring of the effectiveness of the bat crossing point and wider road (to establish if bats cross elsewhere) should also be undertaken. Thermal imaging/infra-red cameras should be used.	The proposed mitigation is set out in the Environmental Management Plan ( <b>APP-128</b> )
4.10.1	o B6/B7. Road casualty surveys design needs to be effective – use of sniffer dogs is recommended and should cover the entirety of the road. Triggers should be identified for where additional mitigation is required.	The proposed mitigation is set out in the Environmental Management Plan ( <b>APP-128</b> )
4.10.1	The county council was not able to locate the Phase 1 habitat survey, or any of the original survey reports undertaken by AECOM, on PINS.	This document was not submitted as part of the Application as more up to date information was available.

## GEOLOGY AND SOILS

Section Number	Comment	Response
4.11	No comment from NCC	This comment is acknowledged and no response is required from the Applicant.

## MATERIAL ASSETS & WASTE

Section Number	Comment	Response
4.12.1	The Mineral Planning Authority (MPA) welcomes the inclusion of a Mineral Impact Assessment as part of the proposed scheme. The MPA agrees with the summary of mineral resources within the scheme and the constraints which are outlined in paragraphs 10.3.16-10.3.18 (of the Mineral Impact Assessment. The MPA also agrees with the assessment of reuse suitability of site-won materials as outlined in paragraphs 10.5.8.-10.5.14.	This comment is acknowledged and no response is required from the Applicant.
4.12.2	The MPA notes that an estimate of 107,500m3 of site won material is likely to be extracted during the construction phase, as outlined in paragraph 10.5.13. The MPA recognises that this an estimate and that a full assessment of the reuse potential of material will be required as it is excavated. Paragraph 10.5.14 states that the scheme has a significant earthworks material deficit, and therefore any opportunity to reuse the excavated material will be taken.	This has been addressed in the Applicant's response to the Examiners Frist Written Questions, GC1.7 submitted at Deadline 2.



Section Number	Comment	Response
4.12.3	In conclusion, the MPA considers that the Mineral Impact Assessment appropriately assesses the safeguarded mineral resources for the proposed scheme and contains an appropriate strategy for identifying suitable material for reuse in the construction phases of the scheme. Norfolk County Council, in its capacity as the Mineral Planning Authority, considers that if the scheme is required to follow the strategy outlined in the Mineral Impact Assessment this will effectively address mineral safeguarding issues relating to resource sterilisation.	This comment is acknowledged and no response is required from the Applicant.

## NOISE AND VIBRATION

Section Number	Comment	Response
4.13.1	The Environmental Statement Non-Technical Summary notes that mitigation measures will be provided to protect noise sensitive receptors which are foreseen to experience significant noise effects resulting from construction of the proposal. These are temporary noise barriers and real-time noise monitoring.	This comment is acknowledged and no response is required from the Applicant.
4.13.1	The assessment concludes there are no significant traffic noise effects predicted from the proposed schemes operations, and therefore no mitigation is suggested.	This comment is acknowledged and no response is required from the Applicant.
4.13.2	The county council would expect disruption to be kept to a minimum during the A47 dualling construction period and would want to work with Highways England, or its contractors, on managing traffic during the works.	This comment is acknowledged and no response is required from the Applicant.

## WALKING, CYCLING AND HORSERIDING

Section Number	Comment	Response
4.14.1	<p>The provision of a new walking, cycling and horse-riding (WCH) bridge across the A47 connecting Cantley Lane South to Cantley Lane North is supported as current WCH provision here is not ideal so underused or misused, indicating revised facilities are needed. Consequently, the removal of the current Pegasus crossing (on the A47 slip roads west of the junction), and the necessity of diversion and/or extinguishment of existing Public Rights of Way, either to accommodate construction or to link to the new bridge, is accepted and supported. <b>However, in order for this [WCH] bridge to fully accommodate all WCH use, a surface suitable for equestrian use must be incorporated into the design and should link into other new WCH facilities.</b></p>	<p>As shown on Engineering Drawing HE551492-GTY-LSI-000-DR-CH-36018 'S45 Cantley Lane Footbridge' (<b>APP-010</b>), the WCH bridge has a minimum clearance of 3.5m between the parapets. The parapets are 1.8m high (71 inches) and the minimum headroom through the structure is 3.7m (12ft). The surfacing on the steel deck plate is to be a rubber compound that is suitable for cyclists and equestrian users.</p> <p>The Applicant will consider the request for mounting blocks at the extents of the bridge during the detailed design phase of the Scheme.</p>
4.14.1	<p>Should it not be possible to have the new route in place before extinguishing the old, the relevant temporary closures and/or diversion orders will be required to maintain continuity of WCH access where possible.</p>	<p>The Applicant will not remove the existing WCHR bridge until the new bridge has been installed to ensure continuity of access.</p>

Section Number	Comment	Response
4.14.1	<p>We note the additional WCH route along the new Cantley Lane link road with crossing facility connecting to the existing WCH provision on Norwich Rd providing additional links to the Wymondham to Sprowston Pedalways cycle route. However, given the recent investment by the county council through DfT's Transforming Cities and Cycle Ambition Grant to create a continuous walking/cycle link between the residential growth areas in Wymondham and Hethersett to the centre of Norwich, the lack of improvements to the existing 95 4.14.2. WCH provision at the Thickthorn junction and no provision along Cantley Lane South from the new link road to the new WCH bridge <b>represents a missed opportunity to build on the recent investment in the area and encourage growth in walking and cycling.</b></p>	<p>Provision of a cycle link along Cantley Lane South would result a considerable amount of vegetation and established trees and hedgerows and urbanise an existing rural road. The vegetation removed would also damage the rural character of the area. Pedestrians and cyclists currently utilise Cantley Lane South with no dedicated infrastructure with the exception of a short length of footway on its southern frontage close to the entrance to the existing footbridge. Cantley Lane South will become a cul-de-sac as a result of the scheme and future traffic flows will be much reduced resulting in safer conditions for pedestrians, cyclists and equestrians.</p>
4.14.1	<p>The construction of a new private means of access on Cantley Lane South may affect the alignment of a Public Right of Way, Hethersett Footpath 6 with the risk of creating a short length of highways maintainable inaccessible PRoW. Layout and design of this junction must take this into account and me adjusted accordingly.</p>	<p>Sheet 3 of the Rights of Way and Access Plans (<b>APP-008</b>) and Part 2 of Schedule 4 on page 55 of the draft DCO (<b>APP-017</b>) indicate that the Scheme will provide a new length of highway between points D7 and D8. Public Right of Way Hethersett Footpath 6 will connect to this new length of highway.</p>
4.14.2	<p>The county council welcomes discussions with Highways England about options for construction. The works have the potential for significant impacts, not just to the operation of the trunk road, but also over a wider area of the local transport network. The council accepts that such works will cause some impacts and wishes to work with highways England on how these best be mitigated</p>	<p>The Applicant is willing to discuss this issue.</p>

## ROAD DRAINAGE AND WATER ENVIRONMENT

Section Number	Comment	Response
4.15.1	The LLFA acknowledge the 600mm freeboard requirements in the new Cantley Lane South Culvert were not possible due to the environmental and ecological considerations. This resulted in a reduction to the minimum freeboard through the culvert to 0.428m during the 100-year plus 65% climate change event.	This comment is acknowledged and no response is required from the Applicant.
4.15.1	The LLFA acknowledge there will be significant improvements to the floodplain extents and the level of flood risk posed due to the new Cantley Lane South Culvert (Figure 8-4 in the Flood Risk Assessment (FRA)). However, the LLFA also observe some variation in the floodplain within agricultural land and water compatible areas (Figures 8-5 and 8-6 in the FRA). It appears from the information presented that the existing water level in these locations could increase by up to 15mm along with minor variation in the location marginally. This could be influenced by the sensitivity of the hydraulic model to the ground model used. Even so, <b>it would be prudent for the developer to liaise with the affected landowners to confirm they are aware and accept this potential change to their properties.</b>	This comment is acknowledged and no response is required from the Applicant.
4.15.1	The FRA should provide detail on the maintenance plan for the mitigation measures proposed by the scheme. No information is provided regarding the inspection frequency, monitoring measures or structure ownership and operational responsibility. The LLFA would expect this information to be included in the FRA. It is noted that the drainage strategy provides	<p>The Applicant continues to engage with the LLFA on ownership of assets and agreements will be agreed within the Statement of Common Ground.</p> <p>The Applicant notes the LLFA comment on inclusion within the FRA of text relating to the maintenance plan for mitigation measures proposed for the Scheme. Additional text can be added to the FRA (<b>APP-111</b>) by Deadline 4.</p>

Section Number	Comment	Response
	some high-level information about who will have maintenance responsibility for the drainage assets on the different sections of road.	Hydraulic modelling was undertaken to inform the design of the culvert carrying the Cantley Stream. The culvert has been designed to convey a fluvial design event with a return period of 1 in 100 year with an additional climate change allowance of 65% with an additional minimum freeboard of 428mm without any additional increase in flood risk.
4.15.1	The potential impacts and the implications of the flood risk at the property on Intwood Road varies between the FRA and the ES. The FRA reports an 8mm increase while the ES chapter 13 reports 15mm. While the increase in water level is small, <b>both documents report that further survey at the property is required to fully determine the impact of this change in water level. The LLFA would expect to review the future survey results, the updated impact assessment for this property and any mitigation proposed, should it be necessary.</b>	Following the collection of additional survey and modelling to better predict the flood risk impacts in the vicinity of Intwood Road, the Applicant can confirm that the updated flood modelling predicts the impact is negligible at this property. The Applicant considers therefore that no compensatory storage will be required.  The revised model and the updated hydraulic modelling report (Annex B of <b>APP-111</b> ) was reissued to the LLFA on 15 July 2021. The Flood Risk Assessment ( <b>APP-111</b> ) will be updated to reflect the revised modelling output and will be sent to Norfolk County Council and the Environment Agency for review and comment. A revised Flood Risk Assessment ( <b>APP-111</b> ) has been prepared and will be submitted to the LLFA in due course.
4.15.1	There is the remaining supplementary groundwater investigation that is yet to be undertaken due to the unknown water levels in the chalk aquifer. <b>The LLFA would expect to review these results and, if required, any further mitigation measures proposed to address any further groundwater flood risks identified by this study.</b>	This has been addressed in the Applicant's response to the Examiners First Written Questions GC 4.5, submitted at Deadline 2.
4.15.1	A summary of the proposed drainage catchments is provided in section 8.3 of the FRA. However, no information relating the pre and post development runoff rates, volume of attenuation required and information relating to infiltration testing is provided. The drainage strategy does not provide a summary of pre and post development runoff rates, a summary of the volume of attenuation required and proposed or information relating to infiltration testing. <b>This should be provided in the FRA to ensure that the</b>	The Applicant notes the LLFA comment on inclusion within the FRA of text relating to the pre and post development runoff rates, volume of attenuation required and information relating to infiltration testing. Additional text can be added to the FRA ( <b>APP-111</b> ) by Deadline 4.

Section Number	Comment	Response
	<p><b>assessment is joined up with the drainage design presented in the drainage strategy.</b></p>	
<p>4.15.1</p>	<p>The construction phase mitigation measures presented in the FRA are “high level generic” approaches and do not relate specifically to the phased construction of the junction improvements. There is no explanation of what the proposed temporary drainage works will include or where the different temporary features will be located.</p> <p>It is indicated in the FRA that elements of the scheme “must be constructed in a phased manner to avoid additional flood risk”. However, there is no further information about the phasing of either the temporary or permanent drainage works or information about how this relates to the construction phasing of the proposed scheme.</p>	<p>Managing potential future flood risk is informed by the FRA (<b>APP-111</b>) and the Drainage Strategy Report (<b>APP-112</b>).</p> <p>The revised model and the updated hydraulic modelling report (Annex B of <b>APP-111</b>) was reissued to the Environment Agency on 15 July 2021. The Flood Risk Assessment (<b>APP-111</b>) will be updated to reflect the revised modelling output and will be sent to Norfolk County Council and the Environment Agency for review and comment. A revised Flood Risk Assessment (<b>APP-111</b>) has been prepared and will be submitted to the ExA at Deadline 4.</p> <p>The temporary drainage design strategy will be provided as part of the Environmental Management Plan (<b>APP-128</b>) and will be produced during detailed design which is secured via Requirement 3 of the dDCO (<b>APP-017</b>).</p> <p>Delivery of the EMP will be secured through dDCO (<b>APP-017</b>) Requirement 4 'Environmental Management Plan' and Requirement 8 'Surface and foul water drainage'. Meanwhile, the Applicant will develop an outline Water Management and Monitoring Plan, which will include an outline Temporary Drainage Strategy, for Norfolk County Council to provide reassurance at this stage; the outcome will be recorded in the Statement of Common Ground.</p>

Section Number	Comment	Response
4.15.1	Further information is expected by the LLFA to demonstrate that flood risk will not be increased elsewhere in the relevant catchments during the construction phase.	The revised model and the updated hydraulic modelling report (Annex B of <b>APP-111</b> ) was reissued to the Environment Agency on 15 July 2021. The Flood Risk Assessment ( <b>APP-111</b> ) will be updated to reflect the revised modelling output and will be sent to Norfolk County Council and the Environment Agency for review and comment. A revised Flood Risk Assessment ( <b>APP-111</b> ) has been prepared and will be submitted to the ExA in due course.
4.15.1	The LLFA seeks assurances that further information and work will be undertaken in the future in the interests of managing potential future flood risk that could be derived from the construction of this scheme.	The temporary drainage design strategy will be provided as part of the Environmental Management Plan ( <b>APP-128</b> ) and will be produced during detailed design which is secured via Requirement 3 of the dDCO ( <b>APP-017</b> ).
4.15.1	In relation to the drainage strategy, no information regarding the proposed drainage approach is provided for the construction stage. Therefore, the information presented in the ES chapter 13 is not substantiated by the current evidence base presented.	A Temporary Surface Water Drainage Plan detailing drainage proposals during construction will be prepared as part of the Environmental Management Plan (Second Iteration) as set out in requirement 4 of the dDCO.
4.15.1	The LLFA seeks assurances that further information will be provided regarding the construction drainage strategy to ensure there is no increase in flood risk during the construction phase, prior to the permanent surface water drainage system becoming operational.	A Temporary Surface Water Drainage Plan detailing drainage proposals during construction will be prepared as part of the Environmental Management Plan (Second Iteration) as set out in requirement 4 of the dDCO.

Section Number	Comment	Response
4.15.1	<p>The drainage strategy confirms that not all existing drainage assets (such as soakaways and commercial fishponds) have been identified and investigated. Further work is ongoing to identify and survey these and other assets. The LLFA seeks reassurance that this work will be undertaken, and the subsequent assessment reported and discussed with the LLFA.</p>	<p>The Highways Agency Drainage Data Management System (HADDMS) shows the presence of existing assets and this is documented in paragraph 13.7.56 to 13.7.58 of ES Chapter 13 (<b>APP-050</b>). A drainage survey is required to confirm the information on DDMS is correct. A drainage survey was undertaken during the spring and summer of 2021. A review of the survey will be completed at the start of the detailed design stage.</p> <p>The principal uncertainties are the confirmation of the location of surface water outfalls and the confirmation of presence of soakaways and their contributing areas. However, the preliminary drainage design has considered that all of the existing and proposed highway drainage would discharge, via attenuation, into Cantley Stream; further details can be found in the Drainage Strategy (<b>APP-112</b>). The impact assessment therefore considers the worst case scenario in terms of drainage area. Should existing soakaways be found during the drainage survey, these would likely be decommissioned as part of the Proposed Scheme.</p>
4.15.1	<p>The drainage strategy has been developed in accordance with the Design Manual for Roads and Bridges (DMRB) guidance. However, there appears to be no consideration or review of the LLFA's design expectations or the alignment of these with the DMRB guidance. The LLFA's design expectations that apply to all schemes are presented in the LLFA's developer guidance.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
4.15.1	<p>The LLFA notes the drainage strategy does not refer to the LLFA's Developer Guidance. This is supported by the developer's reported use of the FSR approach rather than the more relevant and updated FEH approach within the MicroDrainage calculations to design the piped network. The FEH data includes more recent rainfall records and improved accuracy in the hydrological assessment. <b>The LLFA seeks assurances that testing of the proposed drainage network using the FEH rainfall approach is undertaken to confirm that the network is appropriately sized.</b></p>	<p>The Applicant will test the proposed drainage network using FEH rainfall and engage with the LLFA through the detailed design. Detailed design is secured via Requirement 3 of the dDCO.</p>



Section Number	Comment	Response
4.15.1	<p>In section 5.2.22 of the drainage strategy, an impermeable factor 26% is used for soft surfaces, inferring that the majority of surface water is able to infiltrate into the ground, while for hard surfaces a 100% impermeable factor is used. However, later in section 5.4.4 infiltration was dismissed as infiltration testing was unsuccessful. These two approaches oppose each other, based on the information provided. <b>Further assessment is required to address this conflict. It is possible that the soft surface impermeable factor would need to be revised upwards and that a review of the implications is necessary to ensure that there is no increased risk of flooding.</b></p>	<p>The 0.26 factor used allows for water entering the positive drainage system over a longer period. Unlike a road surface where the water will enter the drainage system quickly, water from a vegetated surface takes time and as is significantly slower. Additionally, not all the water from a vegetated surface will ultimately enter the drainage system due to permeability. The 0.26 factor considers low permeability and high antecedent wetness and this is therefore considered to be conservative approach.</p> <p>The infiltration testing refers to the detention basins where the resultant positive drainage network outfalls and the soils ability to infiltrate the full outfall rate from the full catchment area that is being drained within the small footprint of the basin.</p> <p>The Applicant will engage with the LLFA through the detailed design. Detailed design is secured via Requirement 3 of the dDCO.</p>
4.15.1	<p>There is no obvious discussion on the infiltration potential of the ground prior to reporting on the potential discharge options in section 5. Therefore, it is not possible to understand the context and evidence base that the selection of the discharge locations was founded upon.</p>	<p>During the detailed design, the drainage strategy report will updated and will include infiltration testing result to provide context. Detailed design is secured via Requirement 3 of the dDCO.</p>
4.15.1	<p>The drainage strategy provides a summary of post development runoff rates and attenuation volumes for the post development scenario. However, the equivalent information is not available for the pre-development situation. <b>Both sets of information should be provided for each discreet drainage catchment to enable a suitable comparison.</b></p>	<p>The Applicant will engage with the LLFA through the detailed design phase and make this information available for review and agreement. Detailed design is secured via Requirement 3 of the dDCO.</p>
4.15.1	<p>The drainage strategy does not provide information relating to infiltration testing that has been reported to have been undertaken. <b>The LLFA would expect relevant information and results to be reported in both the drainage strategy and FRA to support the proposed drainage design.</b></p>	<p>During the detailed design, the drainage strategy report will be updated and will include infiltration testing results. Detailed design is secured via Requirement 3 of the dDCO.</p>

Section Number	Comment	Response
4.15.1	A ground investigation is mentioned within section 5. However, again, no information or evidence is provided to support the statements made. There is a limited mention of the groundwater levels, although no further information or evidence is provided. <b>It would be reasonable for relevant information from the ground investigation to be provided in the drainage strategy to support the design decisions.</b>	A summary of groundwater levels from the 2018 ground investigation is provided in ES Appendix 13.3 Groundwater assessment ( <b>APP-113</b> ). In addition, as part of the supplementary GI undertaken in 2021, there is ongoing groundwater level monitoring.
4.15.1	On the land to the west of the diverge of the A11 with the link road the use of a pipe and piped storage rather than a ditch is proposed. The LLFA requests that further evidence to justify the selection of a pipe and tanked storage through this woodland area is provided.	Within section 6.2 of the drainage strategy report ( <b>APP-112</b> ), it states 'At the next design stage, consideration will be given to providing an open ditch solution to provide the required attenuation in favour of an underground pipe solution.' During the detailed design phase, the Applicant will undertake a design review in this area and will liaise with the LLFA to ensure that the solution is agreeable.
4.15.1	In relation to the residual risks associated with the proposed pumping station, further information is being sought by the developer to determine the normal operation design storm criteria and failure provision, which may include additional emergency storage provision to mitigate flooding on the carriageway. <b>Once this is determined, it is likely to require the assessment of the potential exceedance flow paths due to asset failure or design exceedance. This would identify where the water would flow and the impacts on the highway infrastructure likely to occur.</b>	The pump station is located within a deep cutting which would be capable of retaining significant amounts of water during pump failure combined with an extreme storm event.  During the detailed design stage, the Applicant will engage with the LLFA to outline contained volumes (storm events) and ultimate exceedance flow paths.
4.15.1	The LLFA note that the emergency storage for the pumping station is being considered. Should this be necessary, the LLFA would require further information that identifies the design capacity of this storage	The Applicant will engage with LLFA with regards to emergency storage volumes.
4.15.2	The LLFA considers there to be an issue regarding the requirements section for surface and foul water drainage. <b>The LLFA would like the draft DCO to be updated to recognise the right organisations by naming them rather than the planning authority</b>	Requirement 8 has been updated in the version of the dDCO submitted at Deadline 2.

Section Number	Comment	Response
	(which does not normally have involvement in these aspects)	
4.15.2	8.—(1) No part of the authorised development is to commence until for that part written details of the surface water drainage system, reflecting the drainage strategy and the mitigation measures set out in the REAC including means of pollution control, have been submitted to and approved in writing by the Secretary of State following consultation by the undertaker with Norfolk County Council as Lead Local Flood Authority on matters related to its function as statutory consultee.	Requirement 8 has been updated in the version of the dDCO submitted at Deadline 2 to include this wording.
4.15.2	(2) No part of the authorised development is to commence until for that part written details of the foul drainage system, reflecting the drainage strategy and the mitigation measures set out in the REAC including means of pollution control, have been submitted to and approved in writing by the Secretary of State following consultation by the undertaker with Anglian Water on matters related to its function.	The Scheme does not include any foul water components, so this element of the requirement is not needed.
4.15.2	(3) The surface water drainage system must be constructed in accordance with the approved details, unless otherwise agreed in writing by the Secretary of State following consultation by the undertaker with the Norfolk County Council as Lead Local Flood Authority on matters related to its function as statutory consultee, provided that the Secretary of State is satisfied that any amendments to the approved details would not give rise to any materially new or materially different environmental effects in comparison with those reported in the environmental statement.	Requirement 8 has been updated in the version of the dDCO submitted at Deadline 2 to include this wording.

Section Number	Comment	Response
4.15.2	(4) <b>The foul water drainage system must be constructed in accordance with the approved details, unless otherwise agreed in writing by the Secretary of State following consultation by the undertaker with Anglian Water on matters related to its function,</b> provided that the Secretary of State is satisfied that any amendments to the approved details would not give rise to any materially new or materially different environmental effects in comparison with those reported in the environmental statement.	The Scheme does not include any foul water components, so this element of the requirement is not needed.
4.15.3	No mention of the ordinary watercourse consenting process. Therefore, the LLFA would like to include the proposed wording below into the DCO: x.—(1) No stage of the works involving the crossing, diversion, alteration, replacement and installation of new structures of any designated main river or ordinary watercourse may commence until a <b>scheme and programme for any such permanent or temporary crossing, diversion, alteration, replacement and installation of new structure in that stage has been submitted to and, approved by the Secretary of State in consultation with Norfolk County Council, the Environment Agency, relevant drainage authorities and Natural England.</b>	The ordinary watercourse consenting process is dealt with outwith the dDCO. It is listed in the Consents and Agreements Position Statement as an additional consent that the Applicant must secure.  RD3 of the REAC table in the Environment Management Plan ( <b>APP-128</b> ) requires the Applicant to secure ordinary watercourse consent and compliance with the EMP is secured by Requirement 4 of the dDCO ( <b>APP-017</b> ). Therefore, the Applicant does not consider the wording proposed to be necessary.
4.15.3	(2) The designated main river or ordinary watercourse must be crossed, diverted, alteration, replacement and installation of new permanent or temporary structures in accordance with the approved scheme and programme.	Please see the response to 4.15.3 above
4.15.3	(3) Unless otherwise permitted under paragraph (x.1), throughout the period of construction of the works, all ditches, watercourses, field drainage systems and culverts must be maintained such that the flow of water is not impaired or the drainage onto and from adjoining land rendered less effective.	Please see the response to 4.15.3 above

Section Number	Comment	Response
4.15.4	Furthermore, we note that there is no mention of the need to involve the LLFA in relation to the review of the temporary surface water drainage plan as part of the EMP. This needs to be addressed. We request that this be added as a requirement, maybe as a part 3 to 8 for the temporary works.	Requirement 4 has been updated in the version of the dDCO submitted at Deadline 2.

## CLIMATE

Section Number	Comment	Response
4.16.1	The scheme follows Highway England's Carbon Tool to evaluate and identify impacts, including the supply chain. The sections referencing Publicly Available Specification 2080:2016, Carbon Management in Infrastructure (PAS 2080), most notably section 14.9.3 (of the Environmental Statement Chapter 14 – Climate), suggests alignment to this. <b>The county council would like to see the scheme accredited to this standard, as it is the national carbon standard for construction projects. Without accreditation, Norfolk County Council would seek justification for its exclusion.</b>	The Applicant refers to DMRB GG 103 (Goals of Sustainable Development) section E/1.22.1 stating the 'minimisation of carbon emissions may be achieved by working in accordance with a recognised standard or specification agreed with Highways England e.g ...PAS 2080:2016[ref 1.N]'. DMRB LA 114 (Climate) section 2.7 also details the use of PAS 2080:2016 to inform the assessment of projects on climate.
4.16.1	The Effects on Climate section of the document (14.10.2) references the relatively small carbon impact of this scheme with regard to the UK's Carbon Budget Programme. However, the county council would suggest instead <b>setting the impact against the cumulative impact of the projected programme of RIS2 and would like to see that a form of evaluation of this has taken place during the process, to align with the national commitment to RIS2.</b>	Cumulative impacts for all the disciplines considered in the environmental impact assessment, including biodiversity, ecology, air quality, noise and carbon emissions, are considered in ES Chapter 15: Cumulative Effects Assessment ( <b>APP-052</b> ). Chapter 15 has been completed in accordance with the requirements of the Infrastructure Planning (EIA) Regulations 2017 and Planning Inspectorate Advice Note Seventeen. Other developments were included as part of the cumulative assessment methodology and this is detailed in section 15.3 of the chapter. As per Table 15.1, in section 15.3, the construction and operational phase traffic data includes traffic associated with other developments, so the greenhouse gas

Section Number	Comment	Response
		<p>emissions assessment reported within the Chapter 14 Climate is inherently cumulative. In accordance with Department for Transport (DfT) Transport Appraisal Guidance, the uncertainty log includes the management of the uncertainties required for formulating the core scenario. The uncertainty log contains the significant local authority and Highways England network schemes. Based on Transport Appraisal Guidance, the schemes included in the Do-Minimum (DM) scenario have a likelihood of at least 'near certain' or 'more than likely'. Therefore other schemes, such as the other A47 schemes and the NWL, are listed in the uncertainty log as 'near certain' or 'more than likely' and as such it is included in the core scenario.</p> <p>The Scheme is also assessed against legislated carbon budgets in Chapter 14 (APP-051), which are also inherently cumulative as they consider emissions across sectors in the economy.</p>
4.16.1	<p>The Environmental Impact Assessment (EIA) aligns with government policy and relates all significant road network schemes to their 'material impact' on meeting national carbon budget targets. The Environmental Impact Assessment (EIA) aligns with government policy and relates all significant road network schemes to their 'material impact' on meeting national carbon budget targets. The county council would suggest using the context of transport in isolation and provide analysis at a county level, using county-based transport data; the impact would then not be diluted into the UK's overall impact. There is a need to demonstrate how each scheme will meet the path to net zero by 2050 on a scheme by scheme basis.</p>	<p>This has previously been addressed in the Applicant's response to the Examiners First Written Questions, GC 4.7 and AQ1.2 submitted at Deadline 2.</p>
4.16.1	<p>The county council would want to work closely with Highways England to identify measures to reduce carbon emissions on the trunk road network, eg by installation of electric vehicle charging points to encourage electric vehicles, and understand how these will be brought forward, their impact on emissions reduction and how they dovetail with measures that local</p>	<p>Highways England are willing to discuss this issue.</p>

Section Number	Comment	Response
	partners are taking on the local transport network and across other sectors.	
4.16.1	s. There is the potential for biodiversity and landscape to provide mitigation factors, although these would need to be significant, above baseline net gain requirements.	This comment is acknowledged. Landscape and biodiversity mitigation for the Scheme is detailed in ES chapter 7, Landscape ( <b>APP-042</b> ) and ES Chapter 8, Biodiversity ( <b>APP-045</b> ) and also included in Table 3-1 (REAC) of the Environmental Management Plan ( <b>APP-128</b> )

## PUBLIC HEALTH

Section Number	Comment	Response
4.17.1	The county council makes the following general comments in respect of its role as having public health responsibilities: <ul style="list-style-type: none"> <li>• Welcome reductions in driver stress for both general well-being and accident reduction potential</li> </ul>	This comment is acknowledged and no response is required from the Applicant.
4.17.1	<ul style="list-style-type: none"> <li>• Residents currently or likely to be affected by noise, vibration and potential increased pollution are screened for impact and potential mitigating action.</li> </ul>	<p>ES Chapter 5 Air Quality (<b>APP-042</b>) presents the air quality assessment and concludes there would be no significant effects on air quality at human and ecological receptors as a result of the Scheme.</p> <p>ES Chapter 11: Noise and Vibration (<b>APP-042</b>) considers the potential effects that are expected to arise due to noise and vibration from the construction and operation of the Scheme, including at the Cringleford development. The approach to this assessment follows the Scoping Report (February 2018) and subsequent agreed Scoping Opinion (March 2018) (<b>APP-121</b>), in combination with DMRB LA 111.</p> <p>The potential effects resulting from noise and vibration associated with the</p>

		<p>construction of the Scheme are considered and Receptor R6 was selected to represent the potentially worst-affected dwellings within the Cringleford development. The assessment at this location identified the potential for moderate or major construction noise impacts due to some of the works phases unless further mitigation is considered. This construction noise impacts could result in significant effects without further mitigation. For this reason additional mitigation against construction noise is identified in Section 11.9 and Table 11-12 in the form of temporary noise barriers. With this further mitigation, no significant effects are expected to occur due to construction noise. The above is controlled through an Environmental Management Plan (<b>APP-128</b>) that requires the construction Contractor to limit construction noise to below the SOAEL (Significant Observed Adverse Effect Level) values, demonstrated through on-site noise monitoring.</p> <p>The assessment of operational road traffic noise requires a three-dimensional road traffic noise to be constructed accounting for the ground profile and 3D alignment of the Scheme (including height). An assessment of changes in road traffic noise was then carried out comprising a comparison of the level of road traffic noise at each receptor in the 'Do Minimum Opening Year' scenario versus the 'Do Something scenario' in both Opening and Future Year. The conclusion of the assessment for the Scheme was that significant effects due to operational road traffic noise with the Scheme (including incorporated mitigation measures) are not expected to occur at noise-sensitive receptors within the study area.</p> <p>In relation to the Cringleford development, eight dwellings within the development were expected to experience a minor adverse impact with a change in road traffic noise of 1.0 to 1.2 dB LA10,18hour on scheme opening, while the noise changes elsewhere within the Cringleford development are negligible. Through applying the DMRB LA111 methodology, the change in road traffic noise at the above eight dwellings is not expected to result in any significant effects and no additional mitigation of operational noise was deemed appropriate or necessary in this location.</p> <p>Mitigation in the form of a noise-reducing road surface has been incorporated within the design of the Scheme. The proposed surfacing on the new A11 to A47 link road, and the Cantley Lane Link Road will be low noise surfacing, with the exception of the overbridges carrying the Cantley Lane Link Road across the A11.</p>
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		The bridge deck in this location is proposed to be surfaced with hot rolled asphalt. This type of material is durable and provides better long term protection to the waterproofing course directly on top of the concrete structure deck.
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### DISCHARGE OF REQUIREMENTS

Section Number	Comment	Response
4.18.1	Comments There are ongoing discussions with the applicant and the district councils affected by this scheme as to how best the discharge of requirements should be undertaken. One option might be that there is a single "lead" Authority discharging the requirements.	The Applicant is open to discussing arrangements.
4.18.1	An alternative option would be that each local authority discharge those requirements within their respective area / statutory remit	The Applicant is open to discussing arrangements.

## 3. APPLICANT'S COMMENTS ON SOUTH NORFOLK DISTRICT COUNCIL'S LOCAL IMPACT REPORT

### RELEVANT PLANNING HISTORY

Comment	Response
2011/1804 – Land north of Hethersett Village Centre, Little Melton Road., Outline planning for residential led mixed use development of 1196 dwellings and associated uses including Primary School, Local Services (up to 1,850 sq. mtrs (GIA) of A1, A2, A3, A4, A5, D1 & B1 uses) comprising shops, small business units, community facilities/doctors' surgeries, sports pitches, recreational space, equipped areas of play and informal recreation spaces. Extension to Thickthorn Park and Ride including new dedicated slip road from A11. Approved conditionally.	This comment is acknowledged and no response is required from the Applicant.
2015/1059 – Land north of Hethersett Village Centre, Little Melton Road Reserved matters application following outline planning permission 2011/1804/O for road layout. Approved conditionally.	This comment is acknowledged and no response is required from the Applicant.

<p>2015/1594 – Phase A1-A Land north of Hethersett Village Centre, Little Melton Road Residential development of 95no dwellings with associated open space and infrastructure. Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2015/1681 - Land north of Hethersett Village Centre, Little Melton Road Reserved Matters for appearance, layout, scale and landscaping of the first phase of development for 126 dwellings in relation to outline permission 2011/1804. Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2016/2230 - Land north of Hethersett Village Centre, Little Melton Road Reserved Matters following planning permission 2011/1804 (Mixed Use Development) - Structural Landscaping. Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2017/0151- Land north of Hethersett Village Centre, Little Melton Road Reserved matters following outline planning permission 2011/1804/O - proposed residential development (phase A1-B) comprising 91 dwellings including 20% affordable housing and associated open space and infrastructure. Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2017/1104 - Land north of Hethersett Village Centre, Little Melton Road Reserved Matters Application following 2011/1804/O for phase B1-B - appearance, layout, scale and landscaping for 107 dwellings. Approved Conditionally</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2018/2326 - Land north of Hethersett Village Centre, Little Melton Road, Reserved matters application for proposed residential development (phase A2) comprising 181 no. dwellings. Including 20% affordable housing and associated open space and infrastructure following 2011/1804. Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2018/2326 - Land north of Hethersett Village Centre, Little Melton Road, Reserved Matters following outline planning permission 2011/1804 for detailed structural landscaping to areas SL9, SL10, SL11, SL12 &amp; SL13. Approved conditionally</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2021/0758 - Land north of Hethersett Village Centre, Little Melton Road Outline planning application (all matters reserved) for an 'uplift' of up to an additional 200 dwellings (market and affordable units) on Parcels A4 (part) and B4 of Phase 4 of the Hethersett North village expansion area (subject of approved planning consent 2011/1804/O). Pending consideration.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2021/1965 - Land north of Hethersett Village Centre, Little Melton Road Reserved matters following outline planning permission 2011/1804 for residential development (Phases A3 &amp; A4) comprising 200 no. dwellings including 20% affordable housing and associated open spaces &amp; infrastructure. Pending</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>

consideration	
2011/0505 – Land North of A11, Silfield Road, Outline planning permission for proposed development to include up to 500 dwellings, Community facilities, site infrastructure including new access roads, public rights of way and drainage, green infrastructure including public open spaces and structural landscape planting. Approved conditionally.	This comment is acknowledged and no response is required from the Applicant.
2015/1280 - Land North of A11, Silfield Road, Phase 1 development for 10 dwellings including site Infrastructure, drainage and green infrastructure following outline planning permission 2011/0505. Approved conditionally	This comment is acknowledged and no response is required from the Applicant.
2015/1649 - Land North of A11, Silfield Road, Reserved matters for 129 dwellings with details for Appearance, Landscape, Layout and Scale. Approved conditionally.	This comment is acknowledged and no response is required from the Applicant.
2015/1760 - Land North of A11, Silfield Road, Reserved matters for proposed development for 90 new dwellings including parking, garages, road infrastructure, drainage and green infrastructure. Approved conditionally.	This comment is acknowledged and no response is required from the Applicant.
2015/1766 - Land North of A11, Silfield Road Reserved matters application following outline planning permission 2011/0505/O for road layout. Approved conditionally.	This comment is acknowledged and no response is required from the Applicant.
2015/2380 - Land North of A11, Silfield Road Reserved matters for Proposed development for 150 new dwellings including parking, garages, road infrastructure and green infrastructure. Approved conditionally	This comment is acknowledged and no response is required from the Applicant.
2016/2557 - Land North of A11, Silfield Road Reserved matters following planning permission 2011/0505 - Public open spaces, green infrastructure and structural Landscaping. Approved conditionally.	This comment is acknowledged and no response is required from the Applicant.
2016/2586 - Land North of A11, Silfield Road Reserved Matters following Outline permission 2011/0505 - Appearance, Landscaping, Layout and Scale for 121 Dwellings. Approved conditionally	This comment is acknowledged and no response is required from the Applicant.
2012/0371 - Land To The East And West Of Rightup Lane. Outline planning permission for Mixed use development of up to 730 dwellings, up to 128 bed care home / homes (in one or two buildings), up to 250 square metres of retail / commercial floor space, a new primary school together with all other associated temporary and permanent infrastructure and green infrastructure, including new access arrangements, sports pitches, allotments and community orchard. Approved conditionally.	This comment is acknowledged and no response is required from the Applicant.

<p>2015/2168 - Land To The East And West Of Rightup Lane, Reserved Matters for Phase 1 of development following planning consent 2012/0371 - Development of 153 Residential Dwellings, Access, Public Open Space and associated Infrastructure. Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2020/2434 - Land To The North And South Of Rightup Lane, Reserved matters following outline permission 2012/0371/O for the construction of vehicular and pedestrian access points, network of pedestrian and cycle routes, informal public open spaces, formal sports provision, play spaces, location of pumping station, biodiversity measures, strategic planting and grassland, allotments, orchard and sustainable drainage ponds, basins and swales. Pending consideration.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2021/0054 - Land To The East And West Of Rightup Lane Reserved Matters application following outline planning permission 2012/0371/O for the erection of 33 dwellings. Pending consideration.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2021/0055 - Reserved matters following outline planning permission 2012/0371/O for the erection of 219 residential dwellings. Pending consideration.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2021/0125 - Land To The East And West Of Rightup Lane Reserved Matters application following outline planning permission 2012/0371/O for the erection of 231 dwellings. Pending consideration.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2013/1793- Land South-west Of Newfound Farm, Colney Lane, Outline planning permission for a development for up to 650 dwellings together with a small local centre, primary school with early years facility, two new vehicular accesses off Colney Lane, associated on-site highways, pedestrian and cycle routes, public recreational open space, allotments, landscape planting and community woodland. Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2018/1389 - Land South-west Of Newfound Farm, Colney Lane, Reserved Matters details for phase 1 relating to the internal spine road with associated drainage infrastructure and landscaping (Outline Planning Permission 2013/1793). Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2018/2200 - Land South-west Of Newfound Farm, Colney Lane, Reserved Matters details of appearance, layout, landscaping and scale of 650 dwellings with a local centre, land for educational use, associated on-site highways, pedestrian and cycle routes, public open space, play space, allotments and community woodland. Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2013/1494 - Land East Of A47, West Round House Way And North Of A11; And Land To The South Of A11 To The East Of A47 And West Of Cringleford, Outline</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>

<p>planning application with all matters reserved (save access) for the creation of up to 650 residential dwellings (use class C3), up to 2,500 sq mtrs of use class A1, A2, A3, A4, A5 and D1 floorspace, together with highways works, landscaping, public realm, car parking and other associated works. Refused, Appeal Allowed.</p>	
<p>2017/0196 - Land East Of A47, West Round House Way And North Of A11; And Land To The South Of A11 To The East Of A47 And West Of Cringleford, Variation of conditions 5, 6, 11, 28, 35, 36, 37 and 38 of permission 2013/1494 (Outline planning application with all matters reserved (save access) for the creation of up to 650 residential dwellings (use class C3), up to 2,500 sq mtrs of use class A1, A2, A3, A4, A5 and D1 floorspace, together with highways works, landscaping, public realm, car parking and other associated works.) - to facilitate greater flexibility in the delivery of the scheme. Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2017/2120 - Land East Of A47, West Round House Way And North Of A11; And Land To The South Of A11 To The East Of A47 And West Of Cringleford Variation of conditions 1, 3, 4, 7, 10, 13, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 33, 36, 38, and 39 following application 2017/0196 which relates to - (Outline planning application with all matters reserved (save access) for the creation of up to 650 residential dwellings (use class C3), up to 2,500 sq mtrs of use class A1, A2, A3, A4, A5 and D1 floorspace, together with highways works, landscaping, public realm, car parking and other associated works.) - to facilitate the development coming forward on a phased basis. Approved conditionally</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2018/2404 - Land East Of A11 And North And South Of Round House Way, Reserved matters application for appearance, landscaping layout and scale following outline permission 2017/2120 for the first section of access road and 7 dwellings with associated landscaping. Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2018/2835 - Land North Of A11 &amp; South West Of Round House Way, Reserved Matters application for appearance, layout, scale, landscaping and access road following outline permission 2017/2120, comprising 203 dwellings for the southern development parcel phase 2. Approved conditionally</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2018/2836 - Land North Of A11 &amp; South West Of Round House Way, Reserved Matters application for appearance, layout, scale, landscaping and access road following outline permission 2017/2120, comprising 90 dwellings for the northern development parcel phase 3. Approved conditionally.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>2018/2783 - Area BS1 South Of Newmarket Road, Reserved Matters details of appearance, layout, scale and landscaping following outline permission 2017/2120, for RM-APP-1 comprising 67 dwellings together with associated landscaping and infrastructure.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>

Approved conditionally.	
2018/2784 - Area BS2 South Of Newmarket Road, Reserved Matters details of appearance, layout, scale and landscaping following outline permission 2017/2120, for RM-APP-2 comprising 79 dwellings together with associated landscaping and infrastructure. Approved conditionally.	This comment is acknowledged and no response is required from the Applicant.
2018/2785 - Area BS3 South Of Newmarket Road, Reserved Matters details of appearance, layout, scale and landscaping following outline permission 2017/2120, for RM-APP-3 comprising 62 dwellings together with associated landscaping and infrastructure. Approved conditionally.	This comment is acknowledged and no response is required from the Applicant.
2018/2786 - Area BS4 South Of Newmarket Road, Reserved Matters details of appearance, layout, scale and landscaping following outline permission 2017/2120, for RM-APP-4 comprising 56 dwellings together with associated landscaping and infrastructure. Pending consideration.	This comment is acknowledged and no response is required from the Applicant.
2018/2787 - Area BS5 South Of Newmarket Road, Reserved Matters details of appearance, layout, scale and landscaping following outline permission 2017/2120, for RM-APP-5 comprising 23 dwellings together with associated landscaping and infrastructure. Pending consideration.	This comment is acknowledged and no response is required from the Applicant.
2018/2788 - Area BS6 South Of Newmarket Road, Reserved Matters details of appearance, layout, scale and landscaping following outline permission 2017/2120, for RM-APP-6 comprising 21 dwellings together with associated landscaping and infrastructure. Pending consideration.	This comment is acknowledged and no response is required from the Applicant.
2018/2789 - Area BS7 South Of Newmarket Road, Reserved Matters details of appearance, layout, scale and landscaping following outline permission 2017/2120, for RM-APP-7 comprising 42 dwellings and approximately 500 sq metres of commercial floorspace, together with associated landscaping and infrastructure. Pending consideration.	This comment is acknowledged and no response is required from the Applicant.
2018/2790 - Area BS8 South Of Newmarket Road, Reserved Matters details of appearance, layout, scale and landscaping following outline permission 2017/2120, for RM-APP-8 comprising 765 sq metres of commercial floorspace (Use classes A1,A2,A3,A4,A5,D1) together with associated landscaping and infrastructure. Pending consideration	This comment is acknowledged and no response is required from the Applicant.
2018/2791 - Area BS9 South Of Newmarket Road, Reserved Matters details of appearance, layout, scale and landscaping following outline permission 2017/2120, for RM-APP-9 comprising of the formal and informal landscaping areas, including areas for formal sport pitches and a sports pavilion, and	This comment is acknowledged and no response is required from the Applicant.

<p>associated infrastructure. Approved conditionally. This planning consent is directly affected by the proposed DCO works.</p>	
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## HERITAGE ASSETS-ECONOMIC ISSUES

Comment	Response
<p>Policy DM4.10 is relevant to the determination of the proposal.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>The Council is broadly happy with the EIA Cultural Heritage Statement chapter. The Council's main concern is the protection of the grade II listed milestone along Norwich Road. The submitted statement indicated the scheme has been designed around retaining this in place and it will be protected during construction, this approach is endorsed.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>The scheduled ancient monument to the south is close to the new link road between Norwich Road and Cantley Lane South, however the Council is aware that the applicant has been liaising directly with Historic England and so we would defer to Historic England's view on the matter. Likewise, other archaeological features potentially impacted upon that require assessment, mitigation and consideration in the planning balance in determining the application are being picked up by Norfolk County Council in their representations on the application.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>There are some former estate houses next to the lodge on Norwich Road and along Cantley Road South (the latter quite altered) which have not been identified as non-designated heritage assets. The Council does not consider that the impact will be that significant on these properties in terms of heritage significance to make changes to the scheme, however we would question why these are not identified as Non designated heritage assets (NDHAs) at least potential NDHAs as these too have heritage connections</p>	<p>As per the requirement of para 194 of the National Planning Policy Framework (NPPF), Norfolk County Council Historic Environment Record (HER) data was gathered to aid the cultural heritage assessment in August 2018, November 2019, and updated again in July 2020.          The reason that the former estate houses next to the lodge on Norwich Road and along Cantley Road South buildings are not identified in the environmental assessment is because they are not identified in the HER as NDHAs</p>

## LANDSCAPE AND VISUAL IMPACT

Comment	Response
<p>The key landscape and visual impacts will result from the construction activity, cuttings and embankments of the main interchange, the new Cantley Lane Link road and overbridges; and the realignment of a short section of Cantley Stream, in respect of the removal/loss of hedgerows, areas of woodland and individual trees; and the impact on the landscape character and visual amenities of the area. The proposed highway improvement works are located within the C1 Yare Tributary Farmland with Parkland Landscape Character Area. Policies DM4.5, DM4.6, DM4.8 and DM4.9 are relevant in the consideration of the proposal.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>Landscape and Visual Impact Assessment – The Council is satisfied that the work has been undertaken in accordance with the accepted industry guidance. The viewpoints used within this are as agreed with the Council. It was our suggestion that, as the likely master plan was known for the emerging St Giles Park development, that viewpoint 5 might be better positioned on the known extremity of the housing area, but it remained at the PRoW. We do not consider that this has significantly affected the findings of the study. The Council does not dispute the findings of the LVIA in terms of the significance of the anticipated landscape and visual effects.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>The Council is concerned about the proposed losses of veteran trees and would welcome any further evolution of the proposal to avoid these. The required removal of veteran trees will reduce the local population of these special features, the characteristics of which are valuable for ecological, cultural and landscape reasons. Notwithstanding the description of themes expressed at 7.3.2 of Chapter 7 of the ES, it will be very difficult (if not impossible) to replace these trees with ones of a similar amenity.</p>	<p>The Scheme design has been through an iterative design process and delivery of the required modern highway standards has necessitated realignment of a section of Cantley Stream and the creation of a wider, standard highway junction at Cantley Lane South (which is currently a narrow rural lane) and the alignment of the A11 to A47 link road. As a result of this, removal of two veteran trees (T13 and T14 north of the A11) has been determined as unavoidable.</p>
<p>The scheme appears to have differentiated between 'important' and other hedgerows (as defined by the Hedgerows Regulations. Seemingly only one short section of 'important' hedgerow is proposed to be removed as part of the current proposals and the Council does not contest this.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>



## NOISE, POLLUTION AND LIGHTING

Comment	Response
<p>Construction Phase - particularly:</p> <ul style="list-style-type: none"> <li>• Air Quality               <ul style="list-style-type: none"> <li>◦ Dust from construction operations</li> <li>◦ Increased traffic emissions as a result of construction operations e.g. traffic congestion and traffic diversions.</li> </ul> </li> <li>• Noise and vibration from construction works including traffic congestion and traffic diversions.</li> <li>• Lighting – it is assumed lighting will be required for the construction operations</li> </ul>	<p>All proposed environmental management during construction is set out in Appendix B of the Environmental Management Plan (<b>APP-128</b>). Compliance with the EMP is secured in the dDCO (<b>APP-017</b>) by requirement 4 and requirement 9 ensures a written scheme of investigation is submitted, approved and complied with.</p>
<p>Operational Phase – particularly:</p> <ul style="list-style-type: none"> <li>• Air Quality – any increase in traffic emissions at residential premises (including future residents of dwellings not yet built/occupied but having a valid planning permission) as a result of the proposal once completed.</li> <li>• Noise and vibration – any increase in noise and vibration at residential premises (including future residents of dwellings not yet built/occupied but having a valid planning permission) as a result of the proposal once completed.</li> <li>• Lighting – it is assumed lighting will be required for the proposal once completed which could be at a significant height relevant to neighbouring residential premises (including future residents of dwellings not yet built/occupied but having a valid planning permission).</li> </ul>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>Policy DM3.13 and DM3.14 are relevant to the consideration of the proposed development.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>The Council considers that the documentation would indicate that the proposal could take place (both the construction and operational phase) without an unacceptable impact on residents, if managed and operated appropriately.</p>	<p>All proposed environmental management during construction is set out in Appendix B of the Environmental Management Plan (<b>APP-128</b>). Compliance with the EMP is secured in the dDCO (<b>APP-017</b>) by requirement 4 and requirement 9 ensures a written scheme of investigation is submitted, approved and complied with.</p>
<p>In view of the above, with regards to specified works to be undertaken issues relating to Control of Noise, Air Quality, Artificial Light, Waste Management, Pollution Prevention, Contamination Assessment and Mitigation and Working Hours, it is noted that Requirement 4 of the draft DCO requires an Environmental Management Plan which in turn includes a Construction noise and dust management plan and a Construction communication strategy. This would go</p>	

<p>some way to addressing concerns regarding the Construction Phase. The Statement Relating to Statutory Nuisance implies lighting will be managed via the lighting plan and thus it would appear sensible for it to be specifically mentioned in Requirement 4 of the draft DCO.</p>	
<p>The Council whilst in general agreement, wishes to be assured that issues relating to hours of operation, siting of any standby generators, good practise procedures, prior notification of constructional noise, floodlighting, movement and storage of waste materials, public safety, dust control and emissions should be in place in the final document. The Council appreciates that the exact wording of the listed documentation/conditions will be subject to further discussion. Arguably the issues relating to the operational phase need to be resolved up front as they may be difficult / impracticable to resolve once any DCO is issued.</p>	

## SOCIO-ECONOMIC AND COMMUNITY MATTERS

Comment	Response
<p>In general, the Council is supportive of the project, recognising the importance of the delivery of the Thickthorn improvement, as a significant piece of infrastructure required to enable planned growth and the need to upgrade the junction was established in the Greater Norwich City Deal.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>
<p>The economic benefits in terms of investment and job creation are welcomed.</p>	<p>This comment is acknowledged and no response is required from the Applicant.</p>

## CONSIDERATION OF THE DRAFT ORDER

Comment	Response
<p>The Environmental Masterplan details replanting proposals in a clear visual format but without species detail or quantification. It is not clear at this stage, how planting design has been calculated to ensure adequate replacements for losses incurred will be achieved. This requires clarification</p>	<p>This has previously been addressed in the Applicant's relevant representation response to RR-011.9 and Common Response F submitted at Deadline 1.</p>

