

# A47 Blofield to North Burlingham Dualling

**Scheme Number: TR010040**

**Volume 9**

## **9.3 Applicant's Response to The Examiner's First Written Questions (ExQ1)**

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

Planning Act 2008

Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009

July 2021

Deadline 1

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning  
(Applications: Prescribed Forms and  
Procedure) Regulations 2009**

A47 Blofield to North Burlingham  
Development Consent Order 202[x]

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**APPLICANT'S RESPONSE TO THE EXAMINER'S  
FIRST WRITTEN QUESTIONS (ExQ1)**

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<b>Author:</b>	A47 Blofield to North Burlingham Dualling Project Team, Highways England

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## **1 INTRODUCTION**

- 1.1.1 The Development Consent Order (DCO) application for the A47 Blofield to North Burlingham scheme was submitted on 30 December 2020 and accepted for Examination on 27 January 2021.
- 1.1.2 The purpose of this document is to set out Highways England's (the Applicant's) response to the Examiners First Written Questions 1 (ExQ1), issued on 27 April 2021.

Question number	Doc ref & question to	Question	Applicant's Response
<b>1. General and Cross Topic</b>			
1.1.1		The Applicant should provide a list of all plans and other documents that will require Secretary of State (SoS) certification (including plan / document references). This should be updated throughout the examination process for ease of tracking document versions and a final list supplied to the Examining Authority (ExA) before the close of the examination.	<p>The list of plans and other document that that will require Secretary of State (SoS) certification is provided in Schedule 10 of the draft DCO (<b>TR010040/APP/3.1 Rev 1</b>) submitted at Deadline 1 (clean and tracked changes versions).</p> <p>Since the submission of the application the Applicant has updated Schedule 10. The Guide to the Application (<b>TR010040/EXAM/9.1 rev 0</b>) contains a full list of documents and version numbers.</p>
1.1.2		Any subsequent versions of the application draft Development Consent Order (dDCO) [APP-016] submitted to the examination should be supplied as both 'clean' and separately with track changes to highlight any changes from the previous version. Please provide in both .pdf and Word formats. It should also be accompanied by a document explaining the changes made.	<p>Noted. The dDCO has been amended and the updated version (clean and tracked changes) in PDF and Word versions submitted at Deadline 1 (<b>TR010040/APP/3.1 Rev 1</b>)</p> <p>A Schedule of Changes to dDCO is also provided (<b>TR010040/EXAM/9.6 Rev 0</b>)</p>
1.1.3		The description of the Proposed Development throughout the application documents includes "2.6km of dual carriageway on the A47". Please explain how this measurement has been arrived at and how it relates to the figure of '4570 metres in length' cited under Work No. 1 of Schedule 1 of the dDCO [APP-016].	The scope of the Scheme is to provide a dual carriageway where it is currently single carriageway. The length of the existing single carriageway is 2.6km. However, as the scheme is offline, this requires construction of 4570 metres of new dual carriageway, with some parts of the existing dual carriageway realigned.
1.1.4		The Consents and Licences Position Statement [APP-018] at paragraph 3.1.3, bullet point 8, makes reference to the dDCO [APP-016] making provision for any works required to trees, including those protected by tree preservation orders. However, the dDCO does not appear to refer to protected trees and it is unclear from the application document whether there are any. Please address and clarify this matter.	<p>This has been deleted from the Consents and Licences Position Statement and an updated version (clean and tracked changes) submitted at Deadline 1 (<b>TR010040/APP/3.1 Rev 1</b>).</p> <p>No protected trees are affected by the Scheme.</p>
1.1.5		ES Chapter 3: Consideration of Alternatives [APP-041] at paragraph 3.1.1 provides a link in respect of the Scheme Assessment Report (2017) relating to the scoring of alternative routes considered. However, the location of the report is not clear from the link provided. Please provide either a link to the actual report or a copy of the report which can then be added to the Examination Library.	ES Chapter 3: Consideration of Alternatives ( <b>APP-041</b> ) has been updated with the correct link and an amended version (clean and tracked changes) has been submitted at Deadline 1 ( <b>TR010040/APP/6.1 Rev 1</b> ).

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<b>1. General and Cross Topic</b>			
1.1.6		In the Equalities Impact Assessment [APP-126], the part D: Assessment (Stage 2) table concludes based on race in respect of 'Pregnancy and maternity' and 'Marriage and civil partnership'. Is this an error which needs to be corrected?	The document ( <b>APP-126</b> ) has been corrected to replace "based on race" with "to people with this protected characteristic". An amended version (clean and tracked changes) has been submitted at Deadline 1 ( <b>TR010040/APP/7.9 Rev 1</b> )
1.1.7		The revised Environmental Management Plan (EMP) [AS-009] is not fully searchable by keyword (ie the Ctrl+F 'Find' function). Please provide a version that is and ensure that any documents submitted into the Examination in the future are fully searchable in this way.	The Applicant notes the comment and will ensure that all documents are fully searchable. An updated version (clean and tracked changes) has been submitted as Deadline 1. ( <b>TR010040/APP/7.7 Rev 2</b> )
1.1.8		<p>Many of the application documents refer to the diversion of a 'medium pressure' gas pipeline (including the Application Form, the dDCO and the EMP). However, the ExA notes that the Relevant Representation (RR) from Cadent Gas Limited [RR-007] suggests that it is an 'intermediate pressure' gas pipeline. Please clarify:</p> <p>a) The pressure and category of the gas pipeline to be diverted;</p> <p>b) If it is an intermediate pressure gas pipeline, whether this has any bearing on the consideration of the application; and</p> <p>c) If it is an intermediate pressure gas pipeline, whether any of the relevant application documents should be amended to reflect this.</p>	<p>The Applicant has used the terms medium pressure gas pipeline and intermediate pressure gas pipeline as interchangeable in the application documents. The Applicant now understands that the pipeline should have been referred to as "intermediate pressure" (which means between 2 and 7 Bar).</p> <p>Each Gas Distribution Network Operator's distribution network is comprised of pipelines operating at different pressure tiers. High Pressure (HP) pipelines operate between 70 and 7 Bar, Intermediate Pressure (IP) between 7 and 2 Bar, Medium Pressure (MP) between 2 Bar and 75 mbar and Low Pressure (LP) below 75 mbar. At intermediate pressure the pipeline is below the pressure criterion set in S20 (4) of the Planning act 2008 and the diversion works are therefore not an NSIP in their own right.</p> <p>In response to the specific ExA's questions:</p> <p>a) Cadent's gas pipeline is Ø8" (Ø200mm) Steel Intermediate Pressure Gas pipeline operating at between 2 to 7 Bar – and intermediate pressure gas pipeline;</p> <p>b) As an intermediate pressure gas pipeline, its diversion remains associated development and is not an NSIP;</p> <p>c) The dDCO and supporting documentation have been amended to refer to the pipeline as an intermediate pressure gas pipeline</p>

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<b>1. General and Cross Topic</b>			
1.1.9	App/ BDC	The Environment Agency (EA), in its RR [RR-008], indicates that, rather than itself, Broadland District Council (BDC) would be responsible for some consents or licence agreements relating to waste and materials as identified in Appendix A of the Consents and Licences Position Statement document [APP-018]. Does BDC agree with this, and if so, can the Applicant please make any changes necessary to the document?	<p>The Consents and Licences Position Statement has been amended and an updated version (clean and tracked changes) submitted at Deadline 1 (<b>TR010040/APP/3.3 Rev 1</b>)</p> <p>The next meeting with Broadland District Council is arranged for the 6 July 2021 and the Applicant will advise them of this change.</p>
1.1.10		The construction programme is set out in Table 2-2 of ES Chapter 2: The Proposed Scheme [APP-040] and is anticipated to last over 22 months and 8 phases (9 including phase 0). Please clarify which works, with the works reference numbers, will be carried out during each phase of the construction programme to understand the timescale of the works listed in Schedule 1 of the dDCO [APP-016].	The Applicant has sought to align which works fall within which phase as currently understood but that phasing remains under consideration. Further detail is provided in Appendix A.
1.1.11		Please provide a table setting out the maximum parameters of the Proposed Development to understand what maximum parameters have been assessed within each aspect ES Chapter?	The Applicant has provided a table in Appendix B, setting out the maximum parameters of the Proposed Development.
1.1.12		<p>How would the Proposed Development:</p> <p>a) achieve 'good design' in accordance with paragraphs 4.28 to 4.35 of the National Networks NPS; and</p> <p>b) accord with the National Infrastructure Commission's Design Principles for National Infrastructure?</p>	<p>The Scheme Design Report (SDR) (<b>APP-123</b>) sets out Highways England's 10 principles of 'good design'. They:</p> <ul style="list-style-type: none"> <li>• make roads safe and useful</li> <li>• are inclusive</li> <li>• make roads understandable</li> <li>• fill in context</li> <li>• are restrained</li> <li>• are thorough</li> <li>• are environmentally sustainable</li> <li>• are innovative</li> <li>• are long lasting</li> <li>• are part of a collaborative process</li> </ul> <p>These principles have been considered and incorporated throughout the option development, option selection and the preliminary design stages described in the Scheme Design Report (<b>APP-123</b>) in line with paragraph 4.28 of the NPS NN.</p>

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<b>1. General and Cross Topic</b>			
			<p>The design requirements, extracted from the NPS NN and the National Infrastructure Commission's Design Principles for National Infrastructure, are listed in Appendix C to this document with narrative setting out how the Scheme achieves 'good design' in each respect.</p> <p>In summary, the Scheme is functional and fit for purpose in that it will generate time savings for road users without impacting on the surrounding network, while the existing A47 will become a safer local access road linking into existing and new footpaths and cycleways in support of safe, sustainable travel. It has prioritised safety in design and is modelled to decrease the accident rate while ensuring reliability and network resilience in the event of accidents, breakdowns, maintenance and extreme weather. The relief of congestion and capacity limitations will also assist the generation of sustainable economic growth, supporting the growth of jobs and new homes. In all respects it is high value for money (VfM).</p> <p>The Scheme's design has prioritised sustainability and efficiency of resource utilisation, minimising its footprint to reduce impact on soils and reusing or recycling materials where possible including sand and gravel in construction. A carbon baseline has been established from which further reductions may be made while monitoring and reporting on carbon emissions during the construction process will be undertaken.</p> <p>The Scheme options were designed by a qualified team of highway engineers, advised by environmentalists, transportation consultants and town planners. The feedback to consultation response and a number of other assessments (including environment, transport, engineering and economics) were undertaken before the preferred option was announced. The siting and design of the Scheme has taken account of the existing environment, landscape and historical context and includes</p>



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<b>1. General and Cross Topic</b>			
			<p>embedded mitigation including planting, habitat creation, lighting, preservation of views, attenuation ponds and earth profiling.</p> <p>The Scheme is not anticipated to affect any particular social group in accessing the services they require, though a large proportion of the benefits will accrue to the medium income groups and business users. Due to the increased capacity of the A47 mainline and the reduced traffic levels on the local road network, the elderly and other vulnerable groups will be able to access key amenities such as healthcare and places of worship.</p>
1.1.13		<p>The Scheme Design Report [APP-123], paragraph 3.1.3, make reference to Highway England's Strategic Design Panel. Has the Proposed Development been subject to review by this panel, and if not, why not?</p>	<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>
1.1.14	App/ BDC	<p>The ExA understands that the development plan for Broadland District, within the administrative boundaries of which the Proposed Development is located, includes: the Greater Norwich Development Partnership Joint Core Strategy for Broadland, Norwich and South Norfolk 2011 (amended 2014); the Broadland District Council Development Management DPD 2015; the Broadland District Council Site Allocations DPD 2016; the Broadland District Council Growth Triangle Area Action Plan 2016; and various neighbourhood plans, including the Blofield Parish Neighbourhood Plan 2016. Please provide a definitive list of relevant development plan policies, reasons for conformity or otherwise with these and a copy of the policies (this could be done as part of the Statement of Common Ground between the</p>	<p>Appendix D provides a definitive list of relevant development plan policies and the reasons for conformity or otherwise with these. The policies are set out in full in the left-hand column with the reasoning on the right.</p> <p>The next meeting with Broadland District Council is arranged for the 6<sup>th</sup> July 2021 and the Applicant will raise this with the intention of agreeing the definitive list and with the Council.</p>

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<b>1. General and Cross Topic</b>			
		Applicant and Broadland District Council and / or within Broadland District Council's Local Impact Report).	
1.1.15		Please provide a summary table of the likely significant residual effects identified within the ES Chapters.	Summary tables are provided in Appendix E
1.1.16		Please address the following discrepancies: a) In paragraph 2.4.1 of ES Chapter 2: The Proposed Scheme [APP-040], is the reference to 'Figure 2.1' correct?: and b) Paragraph 2.6.9 of ES Chapter 2: The Proposed Scheme [APP-040] appears to be incomplete or missing some words.	With regard to the discrepancies identified by the ExA a) This reference has been corrected b) This paragraph has been amended Reference added  ES Chapter 2 ( <b>APP-040</b> ) has been amended and an updated version (clean and tracked changes) submitted at Deadline 1 ( <b>TR010040/APP/6.1 Rev 1</b> ).

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<b>2. Air Quality and Emissions</b>			
1.2.1		<p>The ExA issued a Procedural Decision [PD-004] following the Acceptance of the application, which included a request (No.2) for further detail on dust management during the construction of the Proposed Development. The Applicant provided a revised EMP [AS-009] in response. Whilst the ExA notes the content (at Appendix B.5), it provides very little material as to proposed measures to be adopted to control dust. Given the importance of dust management, the ExA was expecting to be provided with more detail as to proposed methods and measures to be adopted. Please address this by providing greater detail within Appendix B.5 of the EMP and within the Air Quality section of the Register of Environmental Actions and Commitments (REAC) within the EMP [AS-009].</p>	<p>The details of the measures to control dust are not yet developed.</p> <p>Prior to the commencement of works the Principal Contractor will produce the Environmental Management Plan (second iteration) (as set out in Requirement 4 to the dDCO (<b>TR010040/APP/3.1 Rev 1</b>)). The control of dust from construction activities will be detailed in this document.</p> <p>Typical dust control measures that will be deployed include:</p> <ul style="list-style-type: none"> <li>- water tankers spraying haul roads to keep surfaces damp</li> <li>- stockpiled materials sprayed with a polymer that forms a "crust" which limits dust.</li> </ul> <p>The detail will be provided in the Environmental Management Plan (second iteration) which is secured by Requirement 4 to the dDCO (<b>TR010040/APP/3.1 Rev 1</b>)</p>
1.2.2		<p>ES Chapter 5: Air Quality [APP-043], paragraph 5.4.7, sets out that Design Manual for Roads and Bridges (DMRB) LA 105 advises that where construction activities are programmed to last less than two years, it is unlikely that there would be a significant effect on air quality or would affect the UK's ability to comply with the Air Quality Directive. On this basis, the Applicant has scoped out construction traffic from the air quality assessment. Please clarify the following:</p> <p>a) How confident can the ExA be that the construction programme would not be subject to delays to take it beyond two years (noting that the Scheme Design Report [APP-123], paragraph 9.3.3, says "approximately 22 months" and the Transport Assessment [APP-122], paragraph 1.4.2, refers to "approximately two years");</p> <p>b) The reason why the Applicant has used the method set out in DMRB LA 105 guidance rather using the Institute of Air Quality Management guidance as proposed in the Scoping Report?; and</p> <p>c) Provide justification for the assumption that construction traffic air quality impacts are unlikely to lead to significant effects if the</p>	<p>a) The Applicant has used its own, its contractors and their professional advisor's collective experience and that of the supply chain to determine realistic outputs and productivity to assess the likely timescale. Given the scope of works, which is based on the outline design, the Applicant believe we have applied sufficient timescale to complete the Scheme.</p> <p>b) The air quality assessment which includes the assessment of construction dust impacts has followed the approach <b>set out in paragraphs 2.56 to 2.59</b> in LA105. <b>The advice in LA105 undertakes a risk assessment of the potential dust impacts from construction activities. The risk assessment is informed by the location of the nearby</b> sensitive receptors and the scale of the construction activities i.e. the risk rating reflects how likely dust is to cause a notable impact. This guides the development of the appropriate level of mitigation measures to ensure the impact from construction dust is not significant. The approach described in LA105 is similar to the overarching approach described in the</p>

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<b>2. Air Quality and Emissions</b>			
		<p>construction period is under 2 years in duration, for example with reference to predicted vehicle numbers for Average Annual Daily Traffic?</p>	<p>IAQM Guidance i.e. developing a risk based approach to assessing construction dust, the notable difference is that LA105 provides additional clarity on how to consistently assess and describe risk for all projects (Tables 2.58a and 2.58b of LA105).</p> <p>The best practice mitigation measures recommended as part of LA105 are consistent with the various measures advocated by the IAQM guidance. This means the mitigation measures, where required to manage any dusting issuing and included in the construction environmental management plan (CEMP) would be the same.</p> <p>c) The assessment of construction activities in LA105 ensures that a pragmatic assessment is undertaken for a temporary impact. Therefore where the construction activities are short term in duration <b>and / or limited in the amount of time they spend in any one area i.e.</b> 2 years or less, even if they were modelled they would conclude that the impact is <b>small and</b> temporary and consequently would not trigger a significant effect. Even under a worst-case scenario there are large changes in pollutant concentrations at receptors the impact is short term and would be back to the pre-construction levels in a short period <b>not resulting in a</b> significant effect.</p>
1.2.3		<p>The RR from Norfolk County Council (NCC) [RR-002], at section 1.24, suggests that the Applicant should give consideration to the possible impacts on agricultural and allotment lands through increased NOx and associated ozone generation. Please provide a response to this.</p>	<p>The Air Quality Objectives apply at ecological receptors only. Agricultural land and allotments are not classified as a Designated Site. DMRB LA105 requires nitrogen sensitivity only to be assessed on designated sites with nitrogen sensitivity, in line with the Air Quality Objectives.</p>
1.2.4		<p>ES Chapter 5: Air Quality [APP-043], paragraph 5.4.13, states that the opening year represents the worst case in terms of air quality impacts as emissions are expected to improve in future year. Please provide further justification for this assertion.</p>	<p>Pollutant emissions will reduce with time due to the electrification of the UK fleet and other national policy. Therefore, the emissions during the opening year will be greater than the design year (10/15years from then)</p>

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<b>2. Air Quality and Emissions</b>			
1.2.5		<p>Table 5-12 of ES Chapter 5: Air Quality [APP-043], cites modelled receptors 'PCM_3' and 'PCM_4' as being along the A12. Please clarify:</p> <p>a) Whether the reference to the A12 is correct?; and</p> <p>b) The relevance of these two particular Pollution Climate Mapping locations?</p>	<p>a) The reference to the A12 (and PCM link census ID) are correct and taken directly from the attribute table within the PCM GIS shapefile provided by DEFRA. While named 'A12' the location is correct for this section of the A47.</p> <p>b) The Pollution Climate Mapping locations were selected based on the criteria outlined in section 2.69 of ES Chapter 5 Air Quality (<b>APP-043</b>) in accordance with DMRB LA 105 i.e. a qualifying feature being a sensitive receptor located within 15m of the edge of the running lane.</p>
1.2.6		<p>ES Chapter 5: Air Quality [APP-043], paragraph 5.4.26, states that consultation was undertaken with Highways England to discuss the base year traffic data of 2015 and the assessment approach for the ES. It was concluded the most recent available tools for assessment will be used in the assessment alongside the 2015 baseline traffic data. Please explain if and what other consultation has taken place to inform the air quality assessment such as agreement on receptors, methodology etc?</p>	<p>The methodology adopted was in accordance with DMRB LA105. No further consultation was undertaken beyond that described in paragraph 5.4.26 of ES Chapter 5: Air Quality (<b>APP-043</b>).</p>
1.2.7	NCC	<p>The Transport Assessment [APP-072] uses a 2015 base year model for verification. The Applicant states in paragraph 5.5.1 that using 2015 baseline data adds extra uncertainty as traffic flows and background concentrations will not be representative of the current climate; this approach has only been agreed with Highways England (the Applicant). Please comment on the appropriateness of this approach.</p>	<p>Response not required from the Applicant</p>
1.2.8		<p>ES Chapter 5: Air Quality [APP-043], paragraph 5.4.38, states that professional judgement was used when selecting the ecological receptors. Three designated ecological sites within 200m of the ARN are identified in paragraph 5.7.25 that are sensitive to nitrogen deposition but there is no explanation why other sites, such as Trinity Broads Site of Special Scientific Interest, have been omitted. Please explain why these are not included in the assessment?</p>	<p>The approach adopted is in accordance with DMRB LA105. All sites within 200m of the affected road network were identified. These were then screened by the biodiversity expert to identify which sites had nitrogen sensitivity. These sites were then assessed in ES Chapter 6 Cultural Heritage (<b>APP-044</b>).</p> <p>Other designated sites, such as the Trinity Broads SSSI, that did not meet the criteria were not screened in for further consideration in the assessment.</p>

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<b>3. Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))</b>			
1.3.1	NE / NCC / BDC	Can Natural England (NE), NCC and BDC please comment on the approach taken by the Applicant in its HRA Report [AS-007] and confirm whether it is satisfactory?	Response not required from the Applicant
1.3.2	NE	Can NE please comment on the approach to the HRA screening for Paston Great Barn Special Area of Conservation and Barbastelle bat features in Table A.4 of the HRA Report [AS-007]?	Response not required from the Applicant
1.3.3	APP / NE / NCC / BDC	Changes were made to the Conservation of Habitats and Species Regulations 2017 from 1 Jan 2021 due to the United Kingdom's exit from the European Union. Does this have any implications for the HRA Report [AS-007]?	<p>The amendments to the Habitats Regulations 2017 do not have any substantive implications for the HRA Report [AS-007]. As confirmed in the Government's Policy Paper: Changes to the Habitats Regulations 2017 (published on 1 January 2021), the amendments were made to ensure that the Regulations would continue to operate effectively and they provided for the transfer of functions from the European Commission to the appropriate authorities in England and Wales. Save for the necessary changes, the processes and terms in the 2017 Regulations are unchanged. The changes are incorporated within the guidance published on 24 February 2021 by the Department for Environment, Food &amp; Rural Affairs (Defra), Natural England, Welsh Government, and Natural Resources Wales on Habitats Regulation Assessment and protecting European sites, derogation notices and the duty to protect, conserve and restore European sites.</p> <p>As the Scheme will not have adverse effects on the integrity of a European site the changes made to the functions of the appropriate authorities are not applicable to the determination of this DCO application.</p>
1.3.4		The HRA Report [AS-007] concludes no likely significant effects on Breydon Water Special Protection Area and Ramsar sites on the basis that it is unlikely that species would travel from the designated sites to the Proposed Development. Survey results for 2017 to 2019 indicate that Golden Plover and Lapwing, which are qualifying features of the sites, used arable fields within the study area (Tables 4.5 and 4.6 of the HRA Report). Please explain how	<p>Winter bird surveys were undertaken Nov 2017 to March 2018 (inclusive) and then in the months of January, February, November and December in 2019.</p> <p>Breeding surveys were undertaken April to June (inclusive) for both 2018 and 2020.</p>

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<b>3. Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))</b>			
		<p>the conclusion of no likely significant effects has been reached when these species have been found in the study area, particularly Lapwing, which were found in 'large numbers'?</p>	<p>Breydon Water SPA is cited for its wintering Golden Plover population of 5,040 individuals and wintering Lapwing population of 43,225 individuals. In total the peak count of birds seen within the RLB is 16 Golden Plover (January 2018) and 70 Lapwing (January 2017). The peak count of lapwing on site only represents 0.2% of the wintering population from Breydon Water SPA. Golden Plover represents 0.3% of the total wintering population.</p> <p>During the breeding bird surveys in 2018 (<b>APP-090</b>), lapwing were recorded in April and May as "probable breeders". Lapwing were also recorded during March and April in the 2020 breeding bird survey.</p> <p>Professional judgement has been used to conclude that it is likely that the population recorded during the wintering surveys of 2017 and 2019 are those birds which have also summered (and potentially breed) in the surrounding habitats, thus leading to the conclusion they are not linked to the wintering population associated with Breydon Water SPA.</p> <p>This judgement is based on the evidence that when habitat quality (in reference to food availability) was compared to the habitat adjacent to Breydon Water SPA, it was clear that the habitat within the RLB is of a significantly lesser value. Within the 6.9km between the SPA and the Scheme lies 5,502ha of Broadland SPA, consisting of a complex interlinked mosaic of wetland habitats. As there are such large areas of higher value habitats, which would more likely be utilised by the species using Breydon Water, it is unlikely that the species would favour the lesser quality habitats further afield than Broadland SPA thus leading to the conclusion that the birds seen during the survey are not directly linked to the populations which use Breydon Water SPA.</p> <p>The phrase 'large numbers' will be removed from the HRA (<b>AS-007</b>) as the phrase is subjective and misleading. The revised HRA</p>

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<b>3. Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))</b>			
			(clean and tracked changes versions) will be submitted at Deadline 2.
1.3.5		Please provide a detailed explanation as to why the mitigation measures relied on within the HRA Report [AS-007] do not constitute measures intended to avoid or reduce the harmful effects of a project, therefore requiring an Appropriate Assessment in line with the Sweetman ruling (People Over Wind and Peter Sweetman v Coillte Teoranta). Otherwise, provide an updated HRA Report and consideration of adverse effects on the integrity of the designated sites.	The Report to Inform Habitats Regulations Assessment (HRA) ( <b>AS-007</b> ) follows guidance set out in DMRB LA115 Habitats Regulations Assessment (which has been agreed with Natural England). The HRA will be updated and submitted at Deadline 2 ( <b>TR010040/APP/6.9 Rev 2</b> ) to clarify that mitigation measures, including best practice construction measures, are not relied upon for conclusions of LSE.
1.3.6		<p>There appear to be a number of minor discrepancies in the HRA Report [AS-007] and some related figures. Please clarify:</p> <p>a) The reason why, in respect of Figure 2 of the HRA Report [AS-007], Golden Plover and Lapwing, which are identified in the key, do not appear to have been plotted on the map;</p> <p>b) The reason why, in respect of Figure 2 of the HRA Report [AS-007], the key refers to Golden Plover and Lapwing surveys from 2018 only, whereas the HRA Report makes reference to surveys in 2017 and 2019;</p> <p>c) The reason why some figures, for example, ES Figures 8.1 and 8.2 [APP-067] and Figure 1 of the HRA Report [AS-007], have two small dashed red lines near to the edge of the northern extent of the study area; and</p> <p>d) The reason why, in the HRA Report [AS-007], there are numerous instances where the explanatory text in the tables refers to other site designations than the one the table is relating to (for example, Table 4.1 relates to The Broads Special Area of Conservation, whereas, 'Ramsar' is referred to in the explanatory text).</p> <p>Please correct these discrepancies as necessary.</p>	<p>a) This is an error and has been corrected.</p> <p>b) The Figures have been amended</p> <p>c) The Figures has been amended to remove this anomaly.</p> <p>d) All tables have been edited to remove these errors.</p> <p>The updated Habitats Regulations Assessment (<b>TR010040/APP/6.9 Rev 2</b>) will include these amendments (clean and tracked changes versions) and will be submitted at Deadline 2.</p>



Question number	Doc ref & question to	Question	Applicant's Response
<b>3. Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))</b>			
1.3.7		In ES Chapter 8: Biodiversity [APP-046], where have effects of the medium pressure gas pipeline diversion (and changes to the Order limits boundary in 2020) on biodiversity / ecology been considered and how has this aspect of the Proposed Development informed the surveys undertaken?	<p>The environmental effects of the gas pipeline diversion have been assessed as part of the overall scheme effects as it is proposed for works to be undertaken as part of the Scheme.</p> <p>The ecology surveys included a buffer around the earlier project boundary, therefore much of the route of the gas pipeline was already included within the survey areas.</p> <p>Some additional surveys including a habitat walkover (to update Phase 1 habitat survey) and additional bat emergence surveys were conducted in 2020 to account for changes in the project boundary to ensure that the area had been adequately surveyed for inclusion with the EIA. The results of these surveys are included within the ES and are reported in ES Appendix 8.10: 2020 Bat Survey Report (<b>APP-095</b>).</p>
1.3.8	NE / NCC / BDC	ES Chapter 8: Biodiversity [APP-046], paragraph 8.8.2, lists biodiversity resources which have not been carried forward in / scoped out of the assessment. Are NE, NCC and BDC content with this and the justification for it?	Response not required from the Applicant
1.3.9	NE / NCC / BDC	Are the parties content with the Applicant's approach that some protected species surveys, including for great crested newts, would be undertaken prior to construction (and any protected species licences sought subsequently if necessary), given that the COVID-19 pandemic precluded these from being undertaken prior to the submission of the application?	Response not required from the Applicant
1.3.10		BDC suggests in its RR [RR-001] that a full hedgerow survey against the criteria of the Hedgerow Regulations 1997 should be undertaken. Does the Applicant intend to do so during course of the Examination?	<p>An assessment of all species rich hedgerows identified on site is reported in ES Appendix 8.13: Botanical Survey Report (<b>APP-098</b>). This Appendix reports on the likely importance of the hedgerows and potential for impacts upon them. The information is then reported within the relevant assessment sections of ES Chapter 8: Biodiversity (<b>APP-046</b>).</p> <p>Appendix 8.13 provides a robust and detailed survey of the hedges on site and is suitable for impact assessment. No further hedgerow survey is proposed during the examination as it is</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>3. Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))</b>			
			unlikely to provide any additional information that may affect the impact assessment conclusions.
1.3.11		Having regard to Table 8-8 of ES Chapter 8: Biodiversity [APP-046], would the Proposed Development result in an overall biodiversity net gain of and if so, to what extent?	Highways England projects are assessed every three months during the design process using the Defra Metric 2.0 in order to track their Biodiversity Net Gain (BNG) performance, with the final assessment of BNG for a project at Stage 6. Highways England are responsible for monitoring the BNG metric performance across all their road network. For the Scheme at DCO submission the A47 Blofield BNG Metric score stands at a percentage net change greater than 40%. This was achieved through considered planting, landscaping and biodiversity elements including species rich grassland, woodland and biodiversity pond as shown in the Masterplan ( <b>APP-118</b> ).
1.3.12		Table 8-7 of ES Chapter 8: Biodiversity [APP-046] states that, in respect of 'County BAP Allotments', the car park area is to be replaced in adjacent arable land. Please clarify: a) Whether this is correct; and b) Whether there would be any ecological effects on any permanent loss of allotment plots, which the ExA understands from other application documents would occur, in addition to the loss of habitat extent within the car park area as reported in the table.	a) The statement in Table 8-7 ( <b>APP-046</b> ) is not correct. The car park in adjacent land was part of a now a now superseded design. The car park is now proposed within the existing allotment area. Table 8-7 has been corrected and a revised ES Chapter 8 Biodiversity (clean and tracked changes versions) submitted at Deadline 1 ( <b>TR010040/APP/6.1 Rev 1</b> ). b) There would be no ecological effects from loss of allotment plots. Although allotments do provide ecological opportunities for foraging for small mammals and birds etc, they are heavily managed and disturbed areas and therefore provide limited consistent or long-term ecological value.
1.3.13		Table 8-9 of ES Chapter 8: Biodiversity [APP-046] identifies a major adverse effect on Lingwood Community Woodland during construction as a result of tree removal. It goes on to identify a slight adverse residual significance of effect once new woodland planting matures. Please clarify: a) Whether new woodland planting would connect with Lingwood Community Woodland and where this is shown on the Masterplan [APP-118]; b) If it does not connect with Lingwood Community Woodland, how	a) There is new woodland throughout the Scheme extents. Planting directly connected to the existing Lingwood Community Woodland (LCW) is included north of the proposed dual carriageway mainline. Planting is also proposed south of the mainline that is indirectly linked to LCW through tree-lines and hedgerow. This is shown on the Environmental Master Plan ( <b>APP-181</b> ) b) New woodland planting is located adjacent to existing woodland

Question number	Doc ref & question to	Question	Applicant's Response
<b>3. Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))</b>			
		<p>new woodland planting would reduce adverse effects on this particular woodland over the long-term?; and</p> <p>c) Where the gas pipeline diversion crosses Lingwood Community Woodland, whether new woodland planting would be reinstated within these areas?</p>	<p>creating a larger woodland block. This is ecologically advantageous as it reduces 'edge effects' that degrade the quality of a woodland. In addition, the hedge planting across the easement corridor for the gas pipeline ensures continued ecological connectivity along the linear Lingwood Community Woodland. Table 8-9 of ES Chapter 8: Biodiversity (APP-046) assesses the residual effect as slight adverse in recognition of the difficulty in fully mitigating the impact of the woodland loss at Lingwood Community Woodland.</p> <p>c) Where gas pipeline crosses Lingwood Community Woodland, new woodland planting would not be reinstated due to restrictions on planting in proximity to the gas pipeline. Woodland planting is proposed at a number of alternative locations closest being set out in the response to a) above. Hedgerow planting will provide ecological connectivity between the woodland on either side.</p>
1.3.14		<p>The ExA issued a Procedural Decision [PD-004] following the Acceptance of the application, which included a request (No.4) for an outline Landscape and Ecology Management Plan. This was to provide a greater degree of confidence that landscape and ecological features, given their importance to mitigating adverse effects, would function effectively in the long term, should the application be recommended for approval. The Applicant provided a revised EMP [AS-009] in response. Whilst the ExA notes the content (at Appendix B.7), it provides very little material as to proposed measures to be adopted. Given the importance and sensitivity of landscape and ecological features (including new areas of woodland and grassland, the planting of large specimen trees, a new pond and the translocation of important hedgerows), the ExA was expecting to be provided with more detail as to methods and measures for the translocation / establishment / management of these features. Please address this.</p>	<p>Annex B of the EMP (first iteration) (<b>AS-009</b>) includes a list of the relevant management plans to be produced prior to construction by the Principle Contractor. Within this list the Landscape and Ecology Management Plan (LEMP) is included.</p> <p>The EMP is a live document that evolves with iterations. The Principal Contractor will develop the management plans into full management plans prior to construction.</p> <p>The environmental actions and commitments specified in the EMP are to be secured by Requirement 4 in the draft Development Consent Order (dDCO) (<b>TR010040/APP/3.1 Rev 1</b>), ensuring that they will be provided as part of the Proposed Scheme.</p> <p>The REAC in the EMP (<b>AS-009</b>) includes reference to Masterplan (<b>APP-118</b>), which details new areas of woodland and grassland, the planting of large specimen trees (specific heights are denoted in the REAC where required for mitigation), a new pond and the translocation of important hedgerows.</p>

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<b>3. Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))</b>			
			<p>Indicative species mix has also been included in the Masterplan (<b>APP-118</b>). Planting and seeding is covered by the 12 month defect period post opening.</p> <p>L1 of the REAC within the EMP (<b>AS-009</b>) includes the objective to ensure planning reaches maturity, making this a requirement.</p> <p>The maintenance of mitigation such as planting and seeding will be the responsibility of Highways England ensuring all proposed mitigation reaches maturity and reflects the assessment at year 15. The Scheme would be adopted into the Highways England East Region Soft Estate Strategy (2020). This strategy informs all personnel involved in delivering soft estate works on the East Maintenance and Response (M&amp;R) contract; of how and when Soft Estates works &amp; maintenance should be undertaken.</p> <p>This includes the following outcomes:</p> <ol style="list-style-type: none"> <li>1) Soft estate landscape condition is managed and maintained to minimise risks to road users, road workers and adjacent affected parties.</li> <li>2) Soft estate is managed and maintained to protect designated sites, protected species and habitats.</li> <li>3) Soft estate is managed and maintained to ensure that all European and UK designated sites and their constituent habitats and species meet the requirements and objectives for which they were designated.</li> <li>4) Soft estate is managed to ensure the status of the improved / semi-improved / landscaped parts.</li> <li>5) Soft estate is managed and maintained to meet legislative requirements and existing commitments to public inquiries, planning consents, third parties, protection of designated sites (international, national), or protected habitats / species, and not at the detriment of its aesthetic value.</li> <li>6) Soft estate is managed and maintained to maximise the affected property to link with the wider landscape and habitats.</li> <li>7) Affected property is managed and maintained in order to benefit</li> </ol>

Question number	Doc ref & question to	Question	Applicant's Response
<b>3. Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))</b>			
			<p>the species, habitats and sites of nature conservation importance.</p> <p>8) Affected property is managed and maintained in order to contribute to the establishment of coherent ecological networks and delivery of the Highways England biodiversity plan</p> <p>Scope of surveys, maintenance and rectifying defects is detailed in Table E/A.11 Maintenance requirement: Asset type: 3000 – Landscape and ecology.</p> <p>Further detail on methods and measures for the translocation / establishment will be provided as part of a LEMP in the next iteration of the EMP during the detailed design stage.</p>
1.3.15		<p>ES Chapter 8: Biodiversity [APP-046] identifies that there would be a moderate adverse and thus a significant residual effect on bats. Have all potential options been explored to mitigate such effects?</p>	<p>A number of potential mitigation options were explored during the design stage including:</p> <ul style="list-style-type: none"> <li>• Green bridges Not viable due to constraints at the required locations due to heritage assets, residential receptors, flood risk and existing infrastructure.</li> <li>• Underpasses The geology and hydrogeology prevented going under the proposed road level. Building a higher road level was restricted in the same way a green bridge was not viable.</li> <li>• Raised netting to encourage a higher flight path for bats. Natural England have agreed this mitigation approach with Highways England for a pilot scheme. As part of this pilot scheme, this form of mitigation is not allowed to be used until the monitoring results are finished and the methodology reviewed.</li> <li>• Combination of noise barriers and tree planting Standard tree size planting and noise barrier proposed were deemed too short for the bat crossing areas. Increasing the height of the noise barrier had potential wider adverse impacts including visual and heritage.</li> </ul>

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<b>3. Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))</b>			
			The remaining potential option of installing the extra heavy and heavy standard trees for 'bat hops' at each location was taken forward and the significant adverse impact was retained to reflect the uncertainty of successful mitigation.
1.3.16		In its RR, the EA [RR-008] queries the potential for improvements to a number of ponds in the study area. Please provide a response to this.	The EA representation regarding the potential for enhancement of ponds [RR-008] has been noted. Potential for enhancement of ponds in surrounding area is not directly related to mitigation of the scheme impacts.

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<b>4. Climate Change</b>																															
1.4.1		<p>The assessment has not drawn a conclusion as to whether the Proposed Development would cause a significant effect on climate change due to the absence of UK carbon budgets for the lifetime of the Proposed Development. However, the 6th carbon budget is now available for comparison. An assessment and conclusion of likely significant effects should be provided against this budget and in addition a conclusion should be drawn regarding emissions during subsequent carbon budgets periods based on worst case assumptions. Please address this.</p>	<p>The net change in carbon associated with the construction and operation of the scheme when compared against legislated for carbon budgets is set out in the table below:</p> <table border="1" data-bbox="1294 496 2074 914"> <thead> <tr> <th rowspan="2">Project Stage</th> <th rowspan="2">Net change in carbon over 60-year appraisal period (tCO<sub>2</sub>e) (DS vs DM)</th> <th colspan="4">Net change in carbon per UK carbon budget period (tCO<sub>2</sub>e) (DS vs DM)</th> </tr> <tr> <th>Fourth (2023 to 2027)</th> <th>Fifth (2028 to 2032)</th> <th>Sixth (2033 to 2037)</th> <th>2038 to 2087*</th> </tr> </thead> <tbody> <tr> <td>Construction</td> <td>+25,765</td> <td>+25,765</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Operation</td> <td>+133,337</td> <td>+9,487</td> <td>+14,245</td> <td>+12,287</td> <td>+97,317</td> </tr> <tr> <td>Total</td> <td>+159,102</td> <td>+35,252</td> <td>+14,245</td> <td>+12,287</td> <td>+97,317</td> </tr> </tbody> </table> <p>Note: DS is 'Do Something' and DM is 'Do Minimum'. Subtracting DM from DS shows the net change in CO<sub>2</sub>e.            *Carbon budgets are not set for this period.</p> <p>As construction is not planned to start before winter 2022, the third carbon budget (accounting for 2018-2022) is not considered as the initial months of work are unlikely to have a material impact. The construction for this Scheme is scheduled to finish within the Fourth Carbon Budget Period. All the construction emissions have been assessed against the fourth budget as a worst case scenario. Construction of the Scheme is estimated to contribute approximately 0.001% of the fourth carbon budget. Operation of the Scheme is estimated to contribute less than 0.001% in each of the fourth, fifth and sixth carbon budget periods.</p>	Project Stage	Net change in carbon over 60-year appraisal period (tCO <sub>2</sub> e) (DS vs DM)	Net change in carbon per UK carbon budget period (tCO <sub>2</sub> e) (DS vs DM)				Fourth (2023 to 2027)	Fifth (2028 to 2032)	Sixth (2033 to 2037)	2038 to 2087*	Construction	+25,765	+25,765	-	-	-	Operation	+133,337	+9,487	+14,245	+12,287	+97,317	Total	+159,102	+35,252	+14,245	+12,287	+97,317
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<b>4. Climate Change</b>			
			<p>DMRB LA114 section 3.20 states that the <i>assessment of projects on climate shall only report significant effects where increases in GHG emissions will have a material impact on the ability of Government to meet its carbon reduction targets.</i></p> <p>Section 5.17 of NPSNN states that <i>it is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet its carbon reduction plan targets.</i> Section 5.18 goes on to state that <i>any increase in carbon emissions is not a reason to refuse development consent, unless the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets.</i></p> <p>In line with section 5.18 of NPSNN and sections 3.19 and 3.20 of DMRB LA114, it is considered that the magnitude of emissions from the Scheme, in isolation, would not have a material impact on the ability of the UK Government to meet its carbon budgets, and is not anticipated to give rise to a significant effect.</p> <p>Highways England can only undertake an assessment of the likely significant effect of carbon against published Government policy. As Highways England is not responsible for producing the UK carbon budgets it is not possible in the determination of the DCO application to speculate on future Government action. UK carbon budgets are set by Government in response to recommendations from the UK Climate Change Committee. The latest Committee recommendations inform the development of the 6<sup>th</sup> Carbon Budget.</p>



Question number	Doc ref & question to	Question	Applicant's Response
<b>4. Climate Change</b>			
1.4.2		How might the Government's recent announcement about the phasing out of sales of new petrol and diesel vehicles by 2030 to accelerate the transition to electric vehicles (as indicated would be the case in ES Chapter 14: Climate [AS-004], paragraph 14.3.8) affect the assessment set out in ES Chapter 14?	<p>End user (traffic) GHG emissions have been calculated for the Proposed Scheme using the Department for Transport (DfT) <a href="#">Transport Appraisal Guidance (TAG) Methodology, Unit A3 Environmental Appraisal (2015)</a>.</p> <p>The modelling used to support the assessment accounts for predicted proportions of the vehicle types, fuel type, forecast fuel consumption parameters and emission factors according to DfT. These data tables include forward forecasting of different vehicle types (such as electric) for future years. The uses of these data tables is considered best practice for calculating end-user (traffic) greenhouse gas emissions.</p> <p>At the time of writing, no updates have been published to incorporate the Government's announcement into the DfT data tables, which therefore represent a reasonable worst case.</p>
1.4.3		C2 of the REAC [AS-009] suggests that carbon efficiencies would be made before detailed design for some aspects of the Proposed Development. What approach would be taken to decide on these efficiencies and how would their efficiency be assessed?	<p>In accordance with DMRB LA 114, projects shall seek to minimise carbon emissions as far as possible in all cases to contribute to the UK's net reduction in carbon emissions. Throughout the design of the project, opportunities for carbon reduction in accordance with PAS 2080 (reducing carbon in a manner that also reduces cost) have been considered. Further opportunities for reducing carbon are being considered on an ongoing basis.</p> <p>As the proposed scheme progresses to PCF Stage 5 (Construction Preparation), the baseline carbon emissions as calculated at PCF Stage 3 (Preliminary Design) will be sent to the Design Team and Principal Contractor to highlight where carbon hotspots are within the current design. The Carbon Team will work with the Design Team and Principal Contractor throughout the value engineering process to ensure the carbon associated with any design efficiencies is accounted for to aid in the decision-making process. The carbon emissions associated with the final design ahead of PCF Stage 6 (Construction, Commissioning and Handover) will become the new baseline to ensure reductions are made once the Proposed Scheme is on site, in accordance with</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>4. Climate Change</b>			
			Highways England reporting requirements (as included within the Environmental Management Plan ( <b>TR10040/APP/7.7 Rev 1</b> ) resubmitted at Deadline 1, Section 14.9.8).

Question number	Doc ref & question to	Question	Applicant's Response
<b>5. Compulsory Acquisition, Temporary Possession (and other land or rights considerations)</b>			
1.5.1		The Applicant is requested to complete the Compulsory Acquisition (CA) / Temporary Possession (TP) Objections Schedule (Annex A) and to make any entries it believes would be appropriate, taking account of the positions expressed in RRs, and giving reasons for any additions. As the Examination progresses and at each successive deadline, please update the Schedule as necessary.	This has been provided at Deadline 1 as Annex A to the Compulsory Acquisition Schedule ( <b>TR010040/EXAM/9.4 Rev 0</b> )
1.5.2		The Book of Reference (BoR) [APP-021] includes several Statutory Undertakers with interests in land. Can the Applicant: a) Provide a progress report on negotiations with each of the Statutory Undertakers listed in the BoR, with an estimate of the timescale for securing agreement with them; b) Indicate whether there are any envisaged impediments to the securing of such agreements; and c) State whether any additional Statutory Undertakers have been identified since the submission of the BoR with the application.	a) Negotiations are ongoing with each of the Statutory Undertakers and will be concluded before the end of Examination. A summary of progress is contained within the Statutory Undertakers - Progress Schedule ( <b>TR010040/EXAM/9.5 Rev 0</b> ) b) There are no envisaged impediments to the securing of the required agreements. c) No additional statutory undertakers have been identified since submission of the Book of Reference ( <b>TR010040/APP/4.3 Rev 2</b> ).
1.5.3		The former Department for Communities and Local Government published guidance related to procedures for CA (September 2013) in Planning Act 2008: procedures for the compulsory acquisition of land. This states that "Applicants should be able to demonstrate that adequate funding is likely to be available to enable the compulsory acquisition within the statutory period following the order being made, and that the resource implications of a possible acquisition resulting from a blight notice have been taken account of."  The Funding Statement [APP-020] does not identify the CA costs separately from the project costs or explain in detail how a figure for CA costs was arrived at. Please clarify further the anticipated cost of CA and how this figure has been estimated.	Paragraph 2.1.1 of the Funding Statement ( <b>APP-020</b> ) states that the most likely estimate of the Scheme is £89.5 million. This includes the land acquisition; compensation costs and claims associated with the Scheme; legal fees and land agent fees. The costs associated with land acquisition are integrated into the Scheme estimate and met through the sources of funding detailed in Section 3 of the Funding Statement. Paragraphs 3.1.2 to 3.1.5 refers to the government's commitment to fully fund the Scheme as part of the Road Investment Strategy 2020-2025.  The Highways England Delivery Plan (2020-2025) sets out in detail how Highways England will deliver its strategic outcomes and measure success. Page 34 of this Delivery Plan lists the A47 Blofield to North Burlingham as a 'Scheme open for traffic during RP2' along with a reference in Annex B on page 74 to the anticipated start of works and when the Scheme is expected to be open for traffic. Accordingly, Highways England has reaffirmed its commitment to the timely delivery of the scheme and the funding

Question number	Doc ref & question to	Question	Applicant's Response
<b>5. Compulsory Acquisition, Temporary Possession (and other land or rights considerations)</b>			
			<p>necessary to ensure this.</p> <p>The Scheme estimate which has been prepared in accordance with Highways England procedures and the HM Treasury Green Book includes an allowance for compensation payments relating to the Compulsory Acquisition of land interests in and over land and the temporary possession and use of land. It also takes account of potential claims under Part 1 of the Land Compensation Act 1973; Section 10 of the Compulsory Purchase Act 1965 and Section 152(3) of the 2008 Act.</p> <p>Estimates for compensation and land acquisition costs have been informed by land referencing activities; engagement of professional surveyors from the Valuation Office Agency (VOA) used regularly by the Applicant for surveying and valuation purposes and information received from consultation and engagement with parties who have interest in the land. The estimate was reached by appraising the compensation anticipated to be payable as a result of the Scheme (both permanent and temporary) including land value, loss and damage, disturbance, injurious affection (including Part 1 of the Land Compensation Act 1973), landowner fees and costs in line with the Compensation Code and the Department for Communities and Local Government published Guidance related to produces for Compulsory Acquisition.</p>
1.5.4		<p>The Applicant is requested to review the RRs and subsequent Written Representations made by any Statutory Undertaker as the Examination progresses and at each successive deadline update, as necessary, a table identifying and responding to any representations made by Statutory Undertakers with land or rights to which PA2008 s127 applies. Where such representations are identified, the Applicant is requested to identify:</p> <ul style="list-style-type: none"> <li>a) the name of the Statutory Undertaker;</li> <li>b) the nature of their undertaking;</li> <li>c) the land and / or rights affected (identified with reference to the most recent versions of the BoR and Land plans available at that</li> </ul>	<p>Please refer to Statutory Undertakers - Progress Schedule (TR010040/EXAM/9.5 Rev 0).</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>5. Compulsory Acquisition, Temporary Possession (and other land or rights considerations)</b>			
		<p>time);            d) in relation to land, whether and if so, how the tests in PA2008 s127(3)(a) or (b) can be met;            e) in relation to rights, whether and if so, how the tests in PA2008 s127(6)(a) or (b) can be met;            f) in relation to these matters, whether any protective provisions and / or commercial agreement are anticipated, and if so:                i) whether these are already available to the ExA in draft or final form;                ii) whether a new document describing them is attached to the response to this question or                iii) whether further work is required before they can be documented; and            g) in relation to a Statutory Undertaker named in an earlier version of the table but in respect of which a settlement has been reached:                i) whether the settlement has resulted in their representation(s) being withdrawn in whole or part; and                ii) identifying any documents providing evidence or agreement and withdrawal.</p> <p>The table should be titled ExQ1.5.4: PA2008 s127 Statutory Undertakers Land / Rights and provided with a version number that rolls forward with each deadline. If at any given deadline, an empty table is provided, a revised table need not be provided at any subsequent deadline unless the Applicant becomes aware that the data and assumptions on which the empty table was provided have changed.</p>	

Question number	Doc ref & question to	Question	Applicant's Response
<b>5. Compulsory Acquisition, Temporary Possession (and other land or rights considerations)</b>			
1.5.5		<p>The Applicant is requested to review its proposals relating to CA or TP of land and / or rights and to prepare, and at each successive deadline update, a table identifying if these proposals affect the relevant rights or relevant apparatus of any Statutory Undertakers to which PA2008 s138 applies. If such rights or apparatus are identified, the Applicant is requested to identify:</p> <ul style="list-style-type: none"> <li>a) the name of the Statutory Undertaker;</li> <li>b) the nature of their undertaking;</li> <li>c) the relevant rights to be extinguished; and / or</li> <li>d) the relevant apparatus to be removed;</li> <li>e) how the test is s138(4) can be met; and</li> <li>f) in relation to these matters; whether any protective provisions and / or commercial agreement are anticipated, and if so:               <ul style="list-style-type: none"> <li>i) whether these are already available to the ExA in draft or final form;</li> <li>ii) whether a new document describing them is attached to the response to this question; or</li> <li>iii) whether further work is required before they can be documented; and</li> </ul> </li> <li>g) in relation to a Statutory Undertaker named in an earlier version of the table but in respect of which a settlement has been reached:               <ul style="list-style-type: none"> <li>i) whether the settlement has resulted in their representation(s) being withdrawn in whole or part; and</li> <li>ii) identifying any documents providing evidence or agreement and withdrawal.</li> </ul> </li> </ul> <p>The table should be titled ExQ1.5.5: PA2008 s138 Statutory Undertakers Apparatus etc. and be provided with a version number that rolls forward with each deadline. If at any given deadline, an empty table is provided, a revised table need not be provided at any subsequent deadline unless the Applicant becomes aware that the data and assumptions on which the empty table was provided have changed.</p>	<p>Please refer to Statutory Undertakers - Progress Schedule (TR010040/EXAM/9.5 Rev 0)</p>

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<b>5. Compulsory Acquisition, Temporary Possession (and other land or rights considerations)</b>			
1.5.6		<p>To assist with the consideration of whether the extent of the land to be used temporarily is no more than is reasonably required for the purposes of the Proposed Development, please provide further details to justify the extent of the land sought to be used temporarily. For each area, including a particular focus on Plots 3/2a, 4/7c and 5/1a, explain why such a size is required and the justification for the extent of each plot.</p>	<p>Within the boundaries of the Scheme land is required temporarily for construction activities such as topsoil storage, possible stockpiles of imported material and temporary drainage.</p> <p>The only available area is south of Work No. 1. The DCO boundary to the north of the scheme does not provide adequate space for any bulk storage.</p> <p>To the south of the new A47 carriageway, the proximity of Poplar Farm is a constraint. As the land to be used temporarily is between the new carriageway and the gas pipeline route the Applicant has avoided leaving areas 'land locked' with no access during construction.</p> <p>As access will be available from the existing A47 the land between the existing A47 and the new A47 carriageway will be used for large deliveries and as laydown areas for materials and plant storage, and movement along the construction corridor.</p> <p>Included within the DCO boundary are also areas of environmental importance that are to be retained. These hedges and trees will require protection and the additional space south of the scheme will allow unimpeded movement around these areas without impinging on them.</p> <p>Plot 3/2a: This plot is for topsoil storage, possible stockpiles of imported material and temporary drainage. Access to utility diversion works areas.</p> <p>Plot 4/7c: This plot is for topsoil storage, possible stockpiles of imported material and temporary drainage. Access to utility diversion works areas.</p> <p>Plot 5/1a: This plot is intended to provide vehicle parking facilities for staff working on site, as well as visitors to the site. Access to utility diversion works areas.</p>

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1.5.7		<p>The Statement of Reasons (SoR) [APP-019], at section 7.3, states that there is a compelling case in the public interest for CA. Please address the following:</p> <p>a) What assessment, if any, has been made of the effect upon individual Affected Persons and their private loss that would result from the exercise of CA powers in each case?;</p> <p>b) How has it been demonstrated within the application that the public benefits of the scheme outweigh any residual adverse effects including private loss suffered by individual landowners and occupiers?; and</p> <p>c) Demonstrate how such a conclusion has been reached and how the balancing exercise between public benefit and private loss has been carried out?</p>	<p>The Applicant responds as follows:</p> <p>a) The Applicant's professional team has considered the nature and status of the principal parties affected and the likely application of the compensation code for each principal claimant.</p> <p>b) The Applicant's Statement of Reasons as a whole and in particular section 4.1 indicates that the public benefits of the scheme outweigh any adverse effects including private loss suffered by individual owners and occupiers. In addition the Applicant confirmed to its solicitors acting on behalf of the Applicant on 11 December 2020 that such matters had been considered by the Applicant before making its application. The scheme is supported by national and local policy and the principles of the Compensation Code will apply when assessing compensation for the affected owners and occupiers. For all of these reasons the Applicant can be entitled to consider that public benefit outweighs private loss.</p> <p>c) The balancing exercise was carried out on the basis of (legally privileged) advice provided by the Applicant's solicitors and the privileged advice of the Valuation Office provided to the Applicant in regard to the assessment of compensation and negotiations with landowners. Throughout the application process the Applicant has had in mind the need to balance between public benefit and private loss and has prepared the application accordingly</p>
1.5.8		<p>Section 5 of the SoR [APP-019] addresses human rights. Can the Applicant:</p> <p>a) Provide a more detailed demonstration that interference with human rights in this case would be proportionate and justified?; and</p> <p>b) Explain how has the proportionality test been undertaken and how this approach has been undertaken in relation to individual plots?</p>	<p>a) Interference with human rights is both proportionate and justified for the reasons given in the response to question 1.5.7 above. In particular the DCO scheme is supported by national and local policy and in preparing its application the Applicant has sought to acquire only land or interests that are required to allow the scheme to proceed and to cause as little interference with existing interests in land as possible. Particular examples are:</p> <p>i) The Applicant's decision to adopt an alignment as close as possible to the existing alignment of the A47, there as to keep interference with owners and occupiers to a minimum.</p> <p>ii) The use of powers less than for freehold acquisition (for instance the acquisition of new rights for the installation of</p>



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			<p>Cadent's intermediate pressure gas main) rather than seeking full freehold acquisition powers.</p> <p>iii) The Applicant has sought to use, wherever possible, land for compounds and working areas within the area bounded by the existing A47 and realigned Cadent gas pipeline, to restrict the extent of the land affected by the DCO scheme.</p> <p>b) The Applicant analysed the appropriate use of powers for each individual plot to decide whether powers less than for freehold acquisition could be deployed and has done so where this is appropriate without compromising the principles of the scheme as supported by RIS2. Whilst a plot by plot analysis of other proportionality of the proposed compulsory acquisition has not been carried out, the principles outlined in paragraph a) above demonstrate how the Applicant approached the consideration of the appropriateness of compulsory acquisition powers. In relation to all principal landowners, engagement with the owner, on both a formal and informal basis has not indicated that the Applicant's decision regarding the use of compulsory acquisition powers is disproportionate and a compelling case in the public interest exists in relation to the powers sought in each plot.</p>
1.5.9		<p>For the avoidance of doubt, please set out all the factors that are regarded as constituting evidence for a compelling case in the public interest for the CA and TP powers sought and where, giving specific paragraph references, are these set out in the submitted documentation?</p>	<p>The single carriageway section of the A47 between Blofield and North Burlingham experiences congestion and is currently operating at over capacity, leading to longer and unreliable journey times. The Applicant's scheme is intended to remedy the current diceaids and provide for improved future capacity.</p> <p>The Applicant refers to part 4 of its Statement of Reasons, which sets out the section 122 conditions and analysis of how those conditions have been relied upon. In particular the Applicant refer to paragraph 4.1.8 and the "critical need" to improve national networks to address road congestion. It is clear from the Applicant's Case for the Scheme (<b>APP-120</b>).</p> <p>At 4.1.10 of its Statement of Reasons (<b>APP-019</b>) the Applicant refers to its second road investment strategy (RIS2) where the DCO scheme is referred to. This is further covered in the Applicant's Funding Statement (<b>APP-020</b>) as well as the NNNPS</p>

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			<p>Accordance Table (<b>APP-121</b>).</p> <p>In terms of local policy, paragraph 4.1.14 of the Applicant's Statement of Reasons (<b>TR010040/APP/4.1 Rev 1</b>) submitted at Deadline 1) refers to congestion on the A47 whilst policy 6 of the local plan refers to the need to promote improvements to the A11 and A47 (see paragraph 4.1.15 9 of the Applicant's Statement of Reasons).</p> <p>In terms of analysis of the plots, the Applicant believes that the land included in the DCO scheme is no more than reasonably required for the constructing operation and maintenance of the scheme (see paragraph 4.1.20 of the Applicant's Statement of Reasons ((<b>TR010040/APP/4.1 Rev 1</b>) submitted at Deadline 1)) and this analysis applies also to the use of temporary land under temporary powers.</p> <p>With regard to the Applicant's Case for the Scheme (<b>APP-120</b>), the Applicant has:</p> <ul style="list-style-type: none"> <li>i. Considered alternatives to the Scheme – see parts 2.3- 2.7;</li> <li>ii. set and analysed key objectives of the Scheme – see in particular Table 3.1;</li> <li>iii. Assessed accordance with the NNNPS (<b>APP-121</b>) – see Part 3.6 and table 3.2;</li> <li>iv. analysed the wider policy objectives that are relevant – Part 4.1</li> <li>v. Assessed future traffic benefits arising from the Scheme and concluded that improvements in future network conditions will be secured by the Scheme – see part 4.4;</li> <li>vi. the Scheme will improve reliability and network resilience as dual carriageways are more reliable than single carriageways. Road capacity is increased, delays are shortened and accidents (and their impacts) are reduced, all of which contribute to improved reliability. See 4.4.10</li> <li>vii there will be journey time savings - With the Scheme, (compared to without the Scheme), journey times decrease by around 2.0 mins in 2025 and 2.6 minutes in 2040. See 4. 4.17</li> </ul>

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			<p>viii. The Scheme fulfils its objectives by providing additional capacity, relieving congestion, improving journey times and reliability as well as network resilience. See 4.6.1</p> <p>ix. The scheme's overall benefits are summarised in 4.6.4.</p> <p>x. Part 6.2 assesses the Scheme's compliance with the NNNPS between paras 6.2.1 and 6.2.24 and from 6.2.25 the Scheme's compliance with the NPPF is set out.</p> <p>xi. Parts 6.3 and 6.4 deal with compliance with subregional and local plan policy.</p> <p>In summary the Applicant's Case for the Scheme (<b>APP-120</b>), read together with the NNPS Accordance Table (<b>APP-121</b>) set out the policy context against which the Scheme should be viewed. Together, they demonstrate a clear justification for the Scheme grounded in national, regional and local planning and transport policy.</p> <p>There is strong policy support for delivering national networks that meet the country's long-term needs, whilst supporting a prosperous and competitive economy and improving the quality of life for all. The Applicant has considered alternatives to the scheme now proposed, has sufficient funds for the scheme to be delivered and to pay compensation liabilities and has a clear purpose for seeking the acquisition and temporary powers now sought. In all the circumstances therefore it is satisfied a compelling case in the public interest exists for the powers sought.</p>
1.5.10		<p>In the light of the relevant Department of Communities and Local Government Guidance related to CA, <i>Planning Act 2008: procedures for the compulsory acquisition of land</i> and in particular paragraph 8, please describe:</p> <p>a) How can the ExA be assured that all reasonable alternatives to CA (including modifications to the scheme) have been explored; and</p>	<p>a) The Applicant sets out in its consideration of alternatives in Chapter 3 of the ES (<b>APP-041</b>) that alternatives to the scheme were considered and consulted on. The application alignment of the DCO scheme was reached after extensive consultation followed by detailed analysis of the appropriate engineering and other considerations by the Applicant and its professional team.</p>

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		<p>b) Set out in summary form, with document references where appropriate, what assessment / comparison has been made of the alternatives to the proposed acquisition of land or interests in each case.</p>	<p>b) The Applicant refers to Chapter 3 of its Environmental Statement regarding the alternatives (<b>TR010040/APP/6.1 Rev 1</b>) submitted at Deadline 1 and its Consultation Report (<b>APP-022</b>) which includes alternatives to the Scheme.</p> <p>For the creation of a new highway forming part of the strategic network it is imperative that the Applicant holds the freehold of the land on which the new alignment and associated development will be constructed, save where rights can be secured sufficient to ensure that associated development may be installed within the relevant order lands whilst allowing the affected party to retain a beneficial interest in their land. The Applicant has for instance deployed the process of securing temporary powers to carryout works followed by securing of new rights for diversions of utilities rather than seeking freehold acquisition powers.</p> <p>In addition, the Applicant has sought to engage with each of the principal owners affected by the Scheme and will continue to negotiate with a view to securing options over land meaning that compulsory acquisition powers may not be exercised. The Applicant refers to its Compulsory Acquisition Schedule (<b>TR010040/EXAM/9.4</b>) for an update of progress being made with affected parties.</p>
1.5.11		<p>What assurance and evidence can the Applicant provide of the accuracy of the land interests identified as submitted and indicate whether there are likely to be any changes to the land interests, including the identification of further owners / interests or monitoring and update of changes in interests?</p>	<p>The Land Referencing Method Statement (Appendix F to this document) describes the activities carried out to ensure that all those affected by the Scheme are identified as required by the Planning Act 2008.</p> <p>Regular land referencing refresh exercises have been conducted at key milestones through-out the lifecycle of the project up to submission. These activities are detailed in the Method Statement.</p> <p>Land can be transferred and exchanged throughout the Examination and the Applicant will continue its land referencing refresh exercise to ensure these interests are identified at the points required by the Examination Timetable.</p>

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1.5.12		<p>The ExA notes that ES Chapter 11: Noise and Vibration [APP-049] identifies residual significant effects related to noise for some residential and non-residential receptors along the B1140 (High Road) and Yarmouth Road. Could these receptors be entitled to make a relevant claim under the Compulsory Purchase Act 1965, the Land Compensation Act 1973 or s152 of PA2008?</p>	<p>It will be for the owners of the relevant properties along the B1140 and Yarmouth Road to make and justify a claim under the Land Compensation Act (LCA) 1973 part one subject to having a qualifying interest as set down in the LCA 1973.</p> <p>For a claim a person must have been the owner of the property before the date the road first came into public use (known as the 'relevant date') and must also still be the owner on the claim date. For the purposes of making a claim under the Act, the owner of the property is either the freeholder or holds a lease that has at least three years left to run at the date of claim. In addition to being the owner, a person must also occupy the property as its home at the date of claim.</p> <p>Under Part I of the LCA 1973 compensation can be claimed by persons who own and also occupy property that has been reduced in value by more than £50 by physical factors caused by the use of a new or altered road. The physical factors are noise, vibration, smell, fumes, smoke and artificial lighting and the discharge on to the property of any solid or liquid substance.</p> <p>The cause of the physical factors must be the new or altered road in use. For example, if a road is altered, the noise and other adverse effects must arise from the traffic using the altered stretch of road. Part I compensation cannot be claimed for the effects of traffic further down the road where no alteration has taken place. Under the provisions of the Act, a road is altered only when there is a change to the location, width or level of the carriageway or an additional carriageway is provided beside, above or below an existing one. Part I compensation is not payable when the carriageway has simply been resurfaced.</p> <p>Loss of view or privacy, personal inconvenience and physical factors arising during the construction of the road are also not included under Part I compensation. However, we do compensate for damage to property arising from incidents on our road network</p>

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			<p>but not under the provisions of Part I.</p> <p>The first day for claiming compensation is a year and a day after the new or altered highway first came into public use (known as the 'first claim day'). For most road schemes, we publish notices on our website in due course.</p> <p>As no land is being acquired or rights required no claim under the Compulsory Purchase Act 1965 or s153 PA2008 would appear to exist in relation to physical factors identified in ES Chapter 11: Noise and Vibration (<b>APP-049</b>).</p>
1.5.13		On the Land Plans [APP-005], is it the line which identifies a sheet separation which forms the boundary of some individual plots? This is somewhat unclear given that plot boundaries tend to be defined elsewhere by a clear red line.	Land parcels on the Land Plans are split by the Sheet Separation/Cut lines which designate the frame of the sheet and the land parcel splits from each sheet.
1.5.14		On the Land Plans [APP-005], there appears to be two plots identified as 2/10 within Inset D of Sheet 2 of 8. Is this an error which needs correcting?	<p>This is not an error, land parcel 2/10 is detailed and annotated correctly on the plan.</p> <p>Because of the unusual make-up of the title boundaries which form part of the Yarmouth Road, 2/10 is a land parcel which extends across both insets on Sheet 2 and across most of Sheet 2.</p>
1.5.15		The description of a number of plots in the BoR [APP-021] refer to 'Church Road' (including plots 2/2k, 3/3b, 3/3d, 3/5, 3/6, 4/2/ 4/2a, 4/3, 4/5, 4/5d, 4/6 and 4/7). Is the reference to this road correct?	<p>Due to their location, for plots 2/2k, 3/3b, 3/3d, 4/3, 4/5 and 4/7 a description of either Church Road or Lingwood Road is appropriate. In response to the query the descriptions have been changed to Lingwood Road in the updated Book of Reference (clean and tracked changes versions) submitted at Deadline 1 (<b>TR010040/APP/4.3 Rev 2</b>).</p> <p>For plots 3/5, 3/6, 4/2, 4/2a and 4/6 the reference to Church Road seems incorrect. The Book of Reference has been amended and Church Road has been replaced by Lingwood Road (clean and tracked changes) submitted at Deadline 1 (<b>TR010040/APP/4.3 Rev 2</b>).</p>

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1.5.16		SoR [APP-019] paragraph 6.9.2, bullet point 2, states that "Plots 4/7C and 5.1" would be used for principle construction compounds. However, the reference to "5.1" is not consistent with plot reference numbers generally and the Work Plans [APP-006] do not appear to show a construction compound in the location of Plot 4/7c. Please explain this or amend as necessary.	This is an error. Plot 4/7C does not contain a construction compound. The reference to Plot '5.1' has been amended to Plot '5/1a'. An updated version of the Statement of Reasons (clean and tracked changes) ( <b>TR010040/APP/4.1 Rev 1</b> ) submitted at Deadline 1.
1.5.17		The SoR [APP-019], paragraph 8.2.3, refers to 'Plot 1/10c'. There does not appear to be such a plot on the Land Plans [APP-005] or within the BoR [APP-021]. Please address this.	This is an error, the plot which was previously 1/10c is now 1/10b (1/10c was a historic parcel which is no longer applicable). This has been amended and an updated version of the Statement of Reasons (clean and tracked changes) (TR010040/APP/4.1 Rev 1) submitted at Deadline 1.
1.5.18		Please provide an update in respect of Crown Land negotiations.	The Applicant is liaising with the Government Legal Department (GLD) on behalf of the Department for Transport. The last update discussion took place on 24 May 2021 and the parties have been liaising over email since that time. The current position is that the solicitors at GLD are reviewing the papers and information provided and will be taking instructions from their instructing officers in DfT. The next update call is on 12 July 2021. The Applicant is liaising with GLD on for S135 consents for each of the A47 schemes with the Inspectorate but has asked for the Blofield to North Burlingham Scheme to be prioritised given that the Examination has commenced. The Applicant has advised GLD that the Blofield to North Burlingham Examination closes on 22 December 2021 and that this is the last date for obtaining the consents and submitting as part of the Examination.
1.5.19		Please address and provide a full response to the contents of the RR made by the Randlesome family [RR-043].	This has been addressed in The Applicant's Response to the Relevant Representations ( <b>TR010040/EXAM/9.2</b> ) submitted at Deadline 1.

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<b>6. Cultural Heritage</b>			
1.6.1	APP / NCC / BDC / HE	ES Chapter 6: Cultural Heritage (APP-044), paragraph 6.5.6, notes that a final archaeological trenching report is to be made available at a later date. Will this be made available during the course of the examination, and if not, what are the implications for this?	The final trenching report has been submitted as ES Appendix 6.4 – A47 Blofield to North Burlingham Archaeological Evaluation, an archaeological trial trenching survey report (CA Report: SU0135_2) ( <b>APP-077</b> ).
1.6.2		ES Chapter 6: Cultural Heritage (APP-044), paragraph 6.7.7, identifies that 15 key heritage assets may experience significant effects. However, the number of heritage assets listed under the following sections 'Key designated heritage assets' and 'Key non-designated heritage assets' does not appear to correlate with this figure. Please clarify this matter.	<p>The count in ES Chapter 6: Cultural Heritage (<b>APP-044</b>) paragraph 6.7.7 is in error and has been amended. There are 20 key designated and non-designated assets identified under 12 asset groupings. The assets are correctly listed in paragraphs 6.7.8 through 6.7.43:</p> <ol style="list-style-type: none"> <li>1. Church of St Andrew (1051522)</li> <li>2. Church of St Peter (1304547)</li> <li>3. Owls Barn (1304603)</li> <li>4. House at Owls Barn (1372653)</li> <li>5. North Burlingham Park (MNF61984)</li> <li>6. Poplar Farm (MNF12283)</li> <li>7. Oaklands Former Rectory (BLO27)</li> <li>8. Old Post Office (BLO10)</li> <li>9. Post-medieval guidepost (MNF62994)</li> <li>10. Post-medieval milestone (MNF62995)</li> <li>11. Post-medieval milestone (BLO21)</li> <li>12. Beighton House (BLO26)</li> <li>13. Potentially archaeologically significant geophysical anomalies and post-medieval metal objects (MNF67754)</li> <li>14. Potentially archaeologically significant geophysical anomalies (MNF67756)</li> <li>15. Potentially archaeologically significant linear geophysical anomaly (MNF55628)</li> <li>16. Cropmarks of fragmentary enclosure and field boundaries (MNF67748)</li> <li>17. Potentially archaeologically significant geophysical anomalies and prehistoric and post-medieval finds (MNF55616)</li> </ol>



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			<p>18. Potentially archaeologically significant geophysical anomalies and prehistoric and post-medieval finds (MNF67749)</p> <p>19. Potentially archaeologically significant linear and discrete geophysical anomalies (MNF67747)</p> <p>20. Potentially archaeologically significant geophysical anomalies and prehistoric worked flints (MNF43153)</p> <p>An updated version of ES Chapter 6 (<b>APP-044</b>) (clean and tracked changes) has been submitted at Deadline 1.</p>
1.6.3		Notwithstanding ES Figures 6.1 and 6.2 [APP-056], it would be helpful and clearer to plot the heritage assets which may experience significant effects on a separate figure (given, for example, that the extents of North Burlingham Park MNF61984, also referred to as 'parkland associated with Burlingham Hall', are difficult to interpret). Please provide this.	Figure 6.5 ( <b>TR010040/EXAM/6.3 rev 0</b> ) has been provided at Deadline 1.
1.6.4	NCC / BDC / HE	ES Chapter 6: Cultural Heritage [APP-044], section 6.7, identifies key designated and non-designated heritage assets which may experience significant effects. Is BDC, NCC and Historic England (HE) in agreement with this list and the overall assessment of effects on these?	Response not required from the Applicant
1.6.5		ES Chapter 6: Cultural Heritage [APP-044], paragraph 6.7.41, relates to 'Beighton House (BLO26)' non-designated heritage asset. The location is shown on ES Figure 6.2 [APP-056]. However, the description and location appear to relate to The White House, as identified elsewhere in the application documents (for example, R42 on ES Figure 7.2 [APP-057]). In addition, the ExA observed during the recent unaccompanied site inspection, that there is a 'Beighton House' (R43 on ES Figure 7.2), which does not appear to match the description given in ES Chapter 6 paragraph 6.7.41, to the immediate south-east of The White House. Please clarify this matter.	<p>At the location of BLO26, the label "Beighton House" appears most often throughout the historic mapping sequence and so this name has been used in ES Chapter 6 Cultural Heritage (<b>APP-044</b>) for this heritage asset.</p> <p>This was also to avoid potential confusion with "The White House", a Grade II listed building on North Street, Blofield (listing reference 1152819). "The White House" name has been used in several places in the local area as shown on historic mapping and has changed most often in the modern period.</p> <p>The text has been amended to make clearer the reference to the naming convention and an updated version of ES Chapter 6 (<b>APP-044</b>) (clean and tracked changes) submitted at Deadline 1.</p>

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			While there have been differences in names in historical and contemporary records, there is no effect on the outcome of the assessment in each of the chapters.
1.6.6		ES Chapter 6: Cultural Heritage (APP-044), paragraph 6.9.18, refers to "Norwich County Council Environmental Services (NCCES)". Is reference to 'Norwich' here correct, or should it be 'Norfolk'?	ES Chapter 6: Cultural Heritage ( <b>APP-044</b> ) has been amended accordingly, and an updated version (clean and tracked changes) submitted at Deadline 1.
1.6.7	APP / HE / NCC	ES Chapter 6: Cultural Heritage (APP-044), paragraph 6.9.20, states that a written scheme of investigation would be agreed with HE, NCCES and BDC. Should HE and NCCES be specified as consultees, in addition to the relevant planning authority, within Requirement 9 (Archaeological remains) of the dDCO [APP-016]?	The Applicant has made the suggested change to requirement 9 and a revised dDCO provided ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1.
1.6.8	APP / NCC / BDC / HE	Should Requirement 9 (Archaeological remains) of the dDCO [APP-016] make provision for the publication and archiving of any findings following archaeological investigations carried out in accordance with the Written Scheme of Investigation?	This is through Requirement 4 of the dDCO, securing the provisions of the EMP ( <b>AS-009</b> ). The need to report is to be found in Table 6.1 of the EMP. It does not require further provision within Requirement 9.
1.6.9		In some instances, ES Chapter 6: Cultural Heritage (APP-044) refers to the south western corner of North Burlingham Park MNF61984 as being affected (including paragraph 6.8.9 and Table 6-3), though in other instances, it refers to the south eastern corner being affected (including paragraph 6.7.26 and Table 6-2). Please clarify this matter.	ES Chapter 6: Cultural Heritage ( <b>APP-044</b> ) paragraph 7.7.26 and table 6-2 are in error. In all instances, identification of impact to the south-western corner of North Burlingham Park MNF61984 is intended. The text has been amended and an updated version of ES Chapter 6 (clean and tracked changes) submitted at Deadline 1.
1.6.10		Please clarify the difference between the Zone of Theoretical Visibility, as shown on ES Figures 6.1 and 6.2 [APP-056] and the Zone of Visual Influence, as referred to in Table 6-1, Table 6-2 and paragraph 6.6.1 of ES Chapter 6: Cultural Heritage [APP-044]?	The difference is presented in ES Chapter 6: Cultural Heritage ( <b>APP-044</b> ) paragraph 6.6.1, bullet 3.  To clarify, the Zone of Visual Influence (ZVI) is defined by the digitally generated Zone of Theoretical Visibility (ZTV) based on topographical data. It is modified using site observations to account for vegetation or other factors such as non-visual indexing of visual elements and directionality of curated views (for example to rather than from church spires). The ZVI adds a common-sense

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			<p>check to the ZTV for instances such as accessibility to potential observers where the ZTV includes inaccessible rooflines/walls etc. The ZVI does not have a mappable output, as it is based partly on professional judgement and will change with season and weather. The ZTV also does not account for planting or other screening measures proposed as part of the Proposed Scheme.</p>
1.6.11		<p>Table 2 of ES Appendix 6.1 [APP-074] sets out the criteria for assessing magnitude of impact. This includes the terms 'major', 'moderate', 'minor', 'negligible' and 'no change'. However, Table 5 of ES Appendix 6.1 and Tables 6-2 and 6-3 of ES Chapter 6 [APP-044], under columns relating to 'magnitude of impact', include the terms 'none', 'slight' and 'no impact' in some instances. Please explain the reasons for this.</p>	<p>Under columns relating to 'magnitude of impact', the terms 'none', 'slight' and 'no impact' are in error and should be read as "no change", "minor", and "no change" respectively.</p> <p>ES Chapter 6 (<b>APP-044</b>) and ES Appendix 6.1 (<b>APP-07</b>) have been amended and clean and tracked changes versions of both submitted at Deadline 1.</p>
1.6.12		<p>ES Appendix 6.1 [APP-074], paragraph 6.3.6, states that a moderate, large, or very large significance of effect is considered significant. ES Chapter 6: Cultural Heritage (APP-044), paragraph 6.10.1, states that the section (6.10) details likely significant adverse or beneficial residual effects. However, in Table 6-2 (construction effects) and Table 6-3 (operational effects) of section 6.10, there are a number of instances where the significance of effect for certain heritage assets is categorised as 'slight' or 'neutral' in the relevant column, and thus not significant. Please clarify the reason for this.</p>	<p>Although some assets presented in Section 6.10 are not concluded to be significant, these are included for the sake of transparency. Inclusion is to allow the reader to track the descriptions of impact, mitigation, and effect for the key assets identified in the baseline.</p>
1.6.13		<p>Has the heritage assessment adequately considered potential effects on heritage assets from works associated with the diversion of the medium pressure gas pipeline (Work No. 5)?</p>	<p>The ES includes the works associated with the diversion of the intermediate pressure gas main as part of the assessment of archaeological potential found in sections 6.7.44 to 6.7.47, 6.8.15, 6.9.18 and Table 6-2 of ES Chapter 6: Cultural Heritage (<b>APP-044</b>).</p>
1.6.14		<p>The National Networks NPS differentiates between 'substantial harm' and 'less than substantial harm' to the significance of designated heritage assets. Please qualify any harm that would arise to the significance of designated heritage assets having regard to these categories.</p>	<p>Paragraphs 5.131 of the NN NPS states that "<i>When considering the impact of a proposed development on the significance of a designated heritage asset, the Secretary of State should give great weight to the asset's conservation. The more important the asset, the greater the weight should be. Once lost, heritage assets cannot be replaced and their loss has a cultural, environmental, economic</i></p>

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			<p><i>and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. Given that heritage assets are irreplaceable, harm or loss affecting any designated heritage asset should require clear and convincing justification. Substantial harm to or loss of a grade II Listed Building or a grade II Registered Park or Garden should be exceptional. Substantial harm to or loss of designated assets of the highest significance, including World Heritage Sites, Scheduled Monuments, grade I and II* Listed Buildings, Registered Battlefields, and grade I and II* Registered Parks and Gardens should be wholly exceptional."</i></p> <p>Paragraph 5.132 goes on "Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that the greater the harm to the significance of the heritage asset, the greater the justification that will be needed for any loss".</p> <p>ES Chapter 6 Cultural Heritage (<b>APP-044</b>) identifies (Table 6.2) no significant adverse construction effects on any designated sites or features. Table 6.3 identifies no significant adverse effects on any designated sites or features and a moderate beneficial significant effect on the Church of St Andrew (Listed Building Grade I) and a slight beneficial effect on the Church of St Peter (Listed Building Grade II).</p> <p>The Scheme will therefore not result in substantial harm to or total loss of significance to any designated heritage asset.</p>
1.6.15		ES Chapter 6: Cultural Heritage [APP-044], paragraphs 6.9.11 to 6.9.20, sets out a number of construction mitigation measures. Please clarify how such mitigation would be secured?	These matters are captured in the Applicant's Record of Environmental Actions and Commitments (REAC) annexed to its Environmental Management Plan, previously submitted as AS 009. Commitments in the REAC are secured by requirement 4(2) in the dDCO (TR010040/APP/3.1 Rev 1 submitted at Deadline 1).

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1.6.16		The terms 'significance of effect', 'significance of impact', 'impact' or 'effect' are used interchangeably throughout ES Chapter 6: Cultural Heritage [APP-044]. Why is this and what does each term mean?	The text is in error. "significance of effect" and "significance of impact" should both be read as "significance of effect". Where "effect" and "impact" are used outside of "significance of [...]" phrasing, these are used in the vernacular. ES Chapter 6 ( <b>APP-044</b> ) (clean and tracked changes version) has been submitted at Deadline 1.
1.6.17		Please provide further justification as to why the Applicant considers that the recording of any affected archaeological remains in Zones 1-8 and outside these zones would reduce the significance of effect on the heritage assets from moderate / large (Table 5 of ES Appendix 6.1 [APP-074]) to neutral (Table 6-2 of ES Chapter 6: Cultural Heritage [APP-044]).	<p>ES Chapter 6: Cultural Heritage (previously APP-044) sections 6.9.17 and 6.9.18, state that archaeological recording is not the sole recommendation for archaeological mitigation. The provision for preservation in situ has been allowed for in the recommendations for mitigation.</p> <p>It is an accepted archaeological practice that advance professional excavation and recording of the known/potential archaeological resource for which an impact has been predicted and assessed as a less than substantial effect will achieve preservation of the resource 'by archaeological record'. Thus the significance of the effect is ameliorated. It is considered to reduce the significance of effect to neutral, as ES Chapter 6: Cultural Heritage (previously <b>APP-044</b>) sections 6.7.44 through 6.7.47 indicate that the likely nature of the remains is not complex or well preserved enough that there is a risk that there will be loss to potential future archaeological techniques.</p>
1.6.18		Please explain the correlation between the Historic Environment Record number referencing on Figure 1 of ES Appendix 6.4 [APP-071] and that on ES Figure 6.2 [APP-056].	The numbers on Figure 1 of Appendix 6.4 (APP-077) are taken from the "Events" dataset of the Norfolk Historic Environment Record (HER) maintained by NCCES. This dataset is not presented on any other figures and so there is no correlation. ES Figure 6.2 ( <b>APP-056</b> ) uses the "Monuments" dataset from the HER.

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<b>6. Cultural Heritage</b>			
1.6.19		Ch-8 of the REAC [AS-009] states "The proposed layby will create a new viewpoint from which Burlingham Hall will be visible." Please clarify the following: a) Is this the proposed layby shown on Sheet 3 of the General Arrangement Drawings [APP-009]?; b) How would Burlingham Hall be visible from here if, as stated in ES Chapter 6: Cultural Heritage [APP-044], paragraph 6.7.27, most of it was demolished in the 1950s?; and c) To what extent would North Burlingham Park MNF61984 be visible from here?	a) Yes, the proposed layby is shown on Sheet 3 of the General Arrangement Drawings [APP-009] b) The text is in error. The text should refer to North Burlingham Park MNF61984 and has been amended in the REAC which forms part of the EMP. An amended EMP (clean and tracked changes) (TR010040/APP/7.7 Rev 2) has been submitted at Deadline 1. c) The tree line encompassing the north side of North Burlingham Park will be visible year-round to a greater or lesser extent with the seasons, as will the general massing of trees within the parkland. As a historic designed parkland, it is intended that public access to a line-of-sight with these remnant historic landscape features will allow appreciation of the historic environment. It is hoped that the indexing effect of signage will extend to road users who are passing by as well as those stopped at the layby, since the woodland can be seen from various points along both within and beyond the Scheme.
1.6.20	HE	HE's RR [RR-009] refers to a change in the setting of the Grade I listed Church of St Andrew in North Burlingham as a result of the Proposed Development. Please clarify: a) Whether this change, in HE's view, would be a positive or negative one and the reasons why; and b) If negative, the level of harm to the significance of the designated heritage asset.	Response not required from the Applicant

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<b>7. Cumulative Effects</b>			
1.7.1	BDC / NCC / EA / HE / NE	Are the parties satisfied with the Applicant's cumulative effects assessment and the shortlist of projects considered?	Response not required from the Applicant
1.7.2		The methodology for assessing cumulative projects is based on Advice Note 17 (AN17). Table 2 of AN17 sets out the types of development classed as Tiers 1 to 3. Appendix 15.1 [APP-113] classes all but one of other developments as Tier 3 but labels them all either 'near certain' or 'more than likely'. Table 15-2 of ES Chapter 15: Cumulative Effects Assessment [APP-053] states that those that are 'near certain' are under construction but in line with AN17, these would be classed as Tier 1 projects. Please explain the methodology applied to determine Tiers and certainty for each development listed in Appendix 15.1 or correct these discrepancies and describe how this influences the assessment of significance?	Table 15-2 sets out criteria employed by the Transport Forecasting Package Report 2018, which details the methodology of the uncertainty log. 'Under construction' is one of three criteria that defines 'near certain', however not all near certain developments are under construction. The Applicant agrees that all developments under construction are classified as Tier 1 in Table 15-3, but not all 'near certain' developments are under construction and therefore can be classified as Tier 3 where appropriate.
1.7.3		ES Chapter 15: Cumulative Effects Assessment [APP-053] paragraph 15.5.4 notes that 'other developments' are absent from the local planning authority (LPA) website and are thus unlikely to have significant effects on the environment. Noting that, for example, project ID 88 and 88 in ES Appendix 15.1 [APP-113] (which appears to be project ID 881 in ES Appendix 15.2 [APP-114]) appear to have a planning reference number (Broadland 20161483), please clarify this assertion.	All shortlisted developments were reviewed for potential environmental effects from publicly available information. As part of the EIA process and under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, all developments that would potentially result in likely significant effects have a requirement to inform the public. In absence of any listings of EIA Scoping Reports or other relevant publicly available information, it is reasonable to assume that the shortlisted developments have not been considered to potentially result in likely significant effects. This approach is consistent with Advice Note 17 Table 2 Assigning certainty to 'other existing development and/or approved development', where an EIA Scoping Reports equates to a Tier 2 development.
1.7.4		The full reference numbers are not provided for all developments listed in Appendix 15.1. Please update this document to reflect the full reference number for each development.	ES Appendix 15.1 ( <b>APP-113</b> ) references the uncertainty log, which is compiled by the local authority. Reference numbers have only been provided where this has been provided by the local authority.

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<b>8. Draft Development Consent Order (dDCO)</b>			
<b>General</b>			
1.8.1		The application is currently being examined by a single appointed person. Can the parentheses around the words "single appointed person" in the second and fourth paragraphs on page 4 of the dDCO [APP-016] and the parenthesis at the end of the words "single appointed person" in the third paragraph of page 4 be removed?	The Applicant has amended the latest dDCO as requested (clean and tracked changes versions) ( <b>TR010040/APP/3.1</b> Rev 1) and submitted at Deadline 1.
1.8.2		Should working hour restrictions be specified and secured as a requirement in the dDCO?	The Applicant does not believe that the working hours restriction is appropriate or necessary. A large amount of the proposed works will impact on the existing carriageway of the A47 and other works in its vicinity. As a result, it is likely that disruption would be significant if the works had to be carried out during normal working hours. It is normal for the Applicant to carryout works that impact on existing carriageway or interfere with them outside of normal working hours when traffic is less busy and disruption is therefore reduced. Having unrestricted working hours also allows for the Scheme to be constructed as rapidly as possible. The Applicant intends to make applications to the relevant planning authority under the Control of Pollution Act 1974 to regulate the noise generated by the construction of the Scheme.
1.8.3		Should an article for the temporary use of compounds be included in the dDCO?	The Applicant has not identified a need to include such provision.
1.8.4		Should a piling risk assessment, as referred to in W9 of the REAC [AS-009], be specified and secured as a requirement within the dDCO?	This is by Requirement 4 of the dDCO.
1.8.5		How would the installation of noise barriers and other noise mitigation during operation be secured in the dDCO?	This is by Requirement 4 of the dDCO, securing the relevant provisions of the REAC, see entry N2 of Table 3.1 of the EMP ( <b>AS-009</b> ).



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<b>8. Draft Development Consent Order (dDCO)</b>			
<b>Questions / comments relating to Articles (Art):</b>			
1.8.6		Art 2(1): The terms "Book of Reference" and "Environmental Statement" include capital letters whereas elsewhere in the dDCO they do not. Please ensure consistency in this regard and amend the dDCO as necessary/	This has been corrected in the revised dDCO (clean and tracked changes versions) ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1.
1.8.7		Art 2(1): The term "commence" excludes certain works, including the diversion and laying of underground apparatus and site clearance. Might the exclusion of such works mean that they could potentially be carried out to the detriment of any protected species or archaeology prior to the undertaking of further protected species surveys as per Requirement (R) 7 and the submission and approval of a Written Scheme of Investigation as per R9?	The wording is drawn from precedent in a number of made orders. The Applicant has given the provision further consideration and has deleted " the diversion and laying of underground apparatus" from the definition. Site clearance is retained in the definition as any such works that affect protected species would have to be the subject of applications for licenses for the relevant works if conducted in advance of commencement. On that basis the pre commencement surveys referred to in requirement 7 would be carried out in advance of the licence application.
1.8.8		Art 3(2)(a) and Art 20(6): In its RR, the EA [RR-008] highlights some inconsistencies between these articles relating to Environmental Permits. Please clarify the matter and provide justification for any disapplication of legislative provision sought.	The Applicant has deleted the relevant provision in Article 3 in the revised dDCO (clean and tracked changes versions) ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1.
1.8.9		Art 5(2) refers to "Any enactment applying to land within or adjacent to the Order limits". What enactments would apply to land adjacent to the Order limits and which land would be affected and in what way?	The wording included is preceded in a number of other recently made Orders, including Article 4(2) of the A303 (Amesbury to Berwick Down) Development Consent Order 2020 (2020 No. 12097). It is standard wording to provide clarification regarding the relationship between the Order, if made, an existing local or private legislation. It is not provided with the intention of dealing with specific legislation enactments but instead is intended to provide clarification if local or private legislation does apply to the Order land.
1.8.10		Art 7: Please expand on why this article is required and explain the likelihood of the Applicant needing to secure a planning permission within the Order limits for development not associated with the Proposed Development?	This is not the intention of the Applicant and is not anticipated. The article is provided to give clarity as to how subsequent chapters in the planning history of distinct parts of the Order lands should be considered. It is possible that the Applicant may need to

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			secure planning permission for works that are outside of its permitted development rights but do not qualify as nationally significant infrastructure projects. It is also possible that beneficial owners of Order land used temporarily by the Applicant during the construction period might later seek planning permission for the benefit of their land when possession is returned to them.
1.8.11		Art 7: Following on from this, might this article exclude various works from being subject to pre-commencement requirements?	The article required correcting as the word "not" should have been at the end of the first part of article 7(1) and not at the commencement of paragraph (a). This has been corrected in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1. This should remove the Examining Authority's concern in this regard.
1.8.12		Art 7(b): Should this end in a comma rather than a full stop?	This has been corrected in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1.
1.8.13		Art 8: Please justify the provision for exceedances beyond the stated vertical limits of deviation.	The additional flexibility, which is subject to Secretary of State approval, following consultation is provided in case additional deviation is necessary to ensure that the DCO scheme can be constructed if for instance it is discovered that utility locations or connections require additional flexibility or ground conditions or drainage mean that small variations in excess of the stated limits are necessary. Given the topography of the area and the short length of this linear scheme it is considered unlikely that such additional tolerances will be necessary and if relied upon then the additional variations will be very limited in nature and extent. In the circumstances this additional flexibility is therefore considered appropriate to avoid the need to apply for a fresh development consent following detailed design and survey works. The flexibility is always subject to the control of the Secretary of State and falling within the outcomes of the Environmental Statement.
1.8.14		Art 10(4), (5), (6), (7): Please justify why the SoS should be tied into a time period to make a decision?	It is considered that a time limit is appropriate to ensure that there is a clear programme for the Applicant, decision maker and all interested parties to understand and be aware of. It may also be, that when decisions are required, contracts have been or about to be let and there is a commercial imperative on the Applicant in obtaining a decision. In a clear and certain time. Given the acute

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			need for infrastructure such as the Scheme to be delivered swiftly and efficiently, the Applicant believes the time limit is both appropriate and necessary.
1.8.15		Art 10(6): Please justify the appropriateness for decisions of the SoS to be subject to arbitration.	This is standard wording predated in a great many previous decisions on Orders under the Planning Act 2008.
1.8.16		Art 10(11)(c): Should this end in a full stop rather than a semi-colon?	This has been corrected in the revised dDCO (TR010040/APP/3.1 Rev 1) submitted at Deadline 1.
1.8.17		Art 11(3)(a): This disapplies s56 of the New Roads and Street Works Act 1991 (directions as to timing). Would this allow works to begin 'pre-commencement', before other, potentially relevant, requirements have been discharged?	The Applicant does not believe that the disapplication of section 56 of the New Roads and Street Works Act 1991 would allow for works to begin "pre-commencement". Section 56 allows the street authority to deal with either proposed or subsisting street works by direction to specify that the work should be carried out only at certain times. Neither the power nor its disapplication provide any authority in planning terms for works to be carried out in advance of the discharge of pre-commencement requirements or conditions. On this basis the controls provided by pre-commencement or other requirements in schedule to the dDCO are unaffected by the disapplication of section 56.
1.8.18		Art 12: This article uses the terms "street" and "highway" interchangeably. What is the reason for this and should a single term be used consistently?	<p>Article 12 uses both the term street and highway in different paragraphs of the same article, but does not do so interchangeably.</p> <p>The answer to question 1.8.19 sets out in more detail the difference between a highway and a street, however "street" is a broader concept which includes highways (which the public have a right to use) and other ways which the public have permission to use.</p> <p>Paragraph (4) of article 12 is concerned with streets which are not highways, and it is logical that the term street is used in that context.</p> <p>Paragraphs (7) and (8) of article 12 are similarly drafted to refer to street on the basis that this will include both the ways which are</p>

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			not intended to be highways under article 12(4) and the highways referred to elsewhere in article 12.
1.8.19		Art 12: If the definition of a "street" in section 48 of the New Roads and Street Works Act 1991 includes highways and footways does this mean that the use of the term "highway" does not include footways?	<p>The common law recognises three distinct types of highway, which are codified in the Highways Act 1980 as footpaths, bridleways and carriageways (Section 329 of the Highways Act 1980. These are supplemented by a number of statutory forms of highway, including, importantly, cycle tracks (Section 329).</p> <p>These ways are all described under the umbrella term "highway", which signifies that there is a public right to use them.</p> <p>The term "street" as defined in the New Roads and Street Works Act 1991 includes, but is broader than a highway. For example, it includes "roads". Road is not defined in the 1991 Act but is defined in section 142 the Road Traffic Regulation Act 1984 as meaning "any length of highway or other road to which the public has access". This it would appear that the term street includes ways which are not highways, but to which the public have access (for example because the public has been given permission to use the way).</p> <p>A "footway" is the technical word for what is commonly referred to as a "pavement". It is defined by Section 329 of the Highways Act 1980 as "a way comprised in a highway which also comprises a carriageway, being a way over which the public have a right of way on foot only". Section 75 of the Highways Act 1980 allows the highway authority to vary the relative widths of the carriageway and footway.</p> <p>A footway is therefore best understood as a part of a carriageway highway that has been set aside for the use of pedestrians, or, even more simply, as a pavement.</p>

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1.8.20		Art 14: This is a wide power – authorising alteration etc. of any street within the Order limits. It should be clear why this power is necessary. Has consideration been given to whether or not it should be limited to identified streets?	<p>Because the detailed design of the scheme has not yet been carried out, it is necessary to maintain a sufficient degree of flexibility so that the scheme can proceed. The powers in Article 14 provide that flexibility.</p> <p>Article 14 broadly reflects the very broad powers of a highway authority to make changes to a highway as they see fit and without consultation with third parties. For example Section 75 of the Highways Act 1980 allows a highway authority to vary the relative widths of the carriageway and footway; section 65 allows a highway authority to alter a cycle track; and section 77 allows a highway authority to raise or lower the level of a highway.</p> <p>The right to exercise these powers is not unfettered, as such changes must be "for the purposes of constructing and maintaining the authorised development". Moreover, where the undertaker is not the street authority of a street the consent of the street authority is required before such changes are made.</p> <p>In light of the above, the power is therefore considered to be necessary, reasonable and proportionate, and the applicant has not sought to limit the power to specified streets.</p>
1.8.21		Art 16(6): Does BDC consider 28 days to be reasonable?	The Applicant believes this to be a reasonable and a standard response period. It is not aware of this provision applying to any streets where BDC is the Street Authority however. The Applicant has highlighted to Norfolk County Council that it may need to respond to this question.
1.8.22		Art 20: This article relates to the use of any watercourse, public sewer or drain for the drainage of water in connection with the Proposed Development. However, ES Chapter 13 [APP-051] suggests that there would be no direct discharges to watercourses during construction or operation and that there are no proposed connections to public sewerage systems. Given this, please justify the power sought under this article.	The drafting is standard wording derived from with the model clauses and a large number of previously made Orders. It is standard wording and is appropriate to be a power available to the Applicant on the basis that, if agreed with the relevant parties and the Environment Agency, use of watercourses etc is agreed then the power can be relied on. The provision is therefore included for clarification purposes and to avoid the need for additional consenting processes.

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1.8.23		Art 21: In justification of this article, please indicate which buildings may require protective works and why.	<p>The Applicant considered that on balance it was appropriate to include provisions regarding protective works. Whilst it is hoped and anticipated that such powers will not be required, there are several residential properties in close proximity to the proposed works to the west of the junction of the existing A47 with Yarmouth Road where a retaining wall would be provided. Whilst the retaining wall is at some distance from the properties the Applicant included the relevant powers for the ability to swiftly react to any need for protective works should this arise.</p> <p>In addition vibration monitoring is proposed at Poplar Farm – see para 6.9.13 of ES Chapter 6 Cultural Heritage (previously APP-044). It is not anticipated protective works will be required but the Applicant wishes to have the ability to carry out works if required and it is felt appropriate that powers to this effect be sought to enable the objectives of ES Chapter 6 to be complied with. A general power was sought rather than being specific to this location because it was not immediately anticipated that such works would be necessary. It may also be appropriate to consider other properties in the vicinity of Lingwood Road which may potentially be affected by the proposed works albeit again this is considered unlikely.</p>
1.8.24		Art 22(1): This confers a wide power in relation to the entering of "... any land shown within the Order limits or which may be affected by the authorised development". Please provide a detailed justification for this power sought.	<p>Within Article 22(1) the broad power is sought because the Applicant anticipates that surveys outside of Order lands may be required for ecological purposes. This would particularly be in regard to pre-commencement surveys for wildlife, which is protected under the Wildlife and Countryside Act 1981.</p> <p>It may also be necessary to carryout pre-commencement noise surveys on land outside of Order limits in relation to providing evidence for dealing with claims for compensation under Part 1 of the Land Compensation Act 1973.</p>
1.8.25		Art 26: Please fully justify the power sought to impose restrictive covenants. The SoS for Transport's decision (paragraph 62 of the M4 Motorway (Junctions 3 to 12) (Smart Motorway) DCO) should be noted: "to remove the power to impose restrictive covenants and related provisions as he does not consider that it is	<p>The power to impose restrictive covenants is provided principally to protect the plant and equipment of statutory undertakers. The Applicant envisages installing such works under temporary powers then securing or procuring permanent easements for the use maintenance and retention of the relevant apparatus installed</p>

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		appropriate to give such a general power over any of the Order land as defined in article 2(1) in the absence of a specific and clear justification for conferring such a wide-ranging power in the circumstances of the proposed development and without an indication of how the power would be used". Other SoS for Transport decisions have included very similar positions, for example, the A556 (Knutsford to Bowdon Improvement) DCO and the Lancashire County Council (Torrisholme to the M6 Link (A683 Completion of Heysham to M6 Link Road)) DCO.	underground or overhead. In particular, where apparatus is installed underground it is considered necessary to obtain appropriate covenants from the relevant landowner to protect the installed apparatus. The Applicant would refer the Examining Authority to Schedule 5 of the draft DCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1, where it is made clear what is anticipated in terms of protecting the installed apparatus. On this basis the Applicant believes it is fully considered the need for the power to impose restrictive covenants and that there is a compelling case for such powers on the basis that it is needed to protect the apparatus of statutory undertakers after it has been installed.
1.8.26		Art 28(10): Please change "Order Land" to "Order land" for consistency and add a comma between the words "agents" and "contractors" for clarity.	This has been corrected in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1.
1.8.27		Art 29(4)(b): Is the phrase "...end insert-" here correct, or should it just say "insert-"? Please explain and clarify.	This has been corrected in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1.
1.8.28		Art 35: Please fully justify the power sought to impose restrictive covenants. The EM does not appear to address this.	See response to ExAQ1 1.8.28. The need for such powers is addressed in the Applicant's Statement of Reasons ( <b>APP-019</b> ) – see Table 6.1)
1.8.29		Art 38(1): This uses the phrase "... any tree or shrub within or overhanging land within the Order limits" but the EM uses "... any tree or shrub that is near the project". Could the EM be made consistent with the dDCO in this regard?	This has been corrected in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1.
1.8.30		Art 38(4)(b): Please provide full justification for this power given that Schedule 8 lists hedgerows required for removal.	This wider power is included within the Order in case it becomes necessary to remove additional hedgerows not immediately identified by the Applicant, particularly if additional accommodation works such as private means of access or additional works accesses are resolved upon this being required following additional landowner consultation and/or further work on the detailed design and implementation programme for the DCO scheme. The power is subject to relevant Planning Authority providing its consent is therefore subject to appropriate controls and is analogous to consents being required under the Hedgerows

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			Regulations 1997. It is therefore considered an appropriate balance between the competing needs of landowners and the Applicant and the appropriateness of protecting hedgerows versus the need to swiftly implement a major infrastructure project.
1.8.31	BDC	Art 38(4)(b): Is BDC content with the provisions of this article?	Response not required from the Applicant
1.8.32		Art 41: Are the controls on noise elsewhere in the dDCO sufficient to justify the defence being provided by this article to statutory nuisance claims relating to noise?	The Applicant believes that the appropriate balance has been struck between protections provided in relation to noise issues and the provision of a defence to statutory nuisance claims. The provision of noise barriers where relevant is secured by Requirement 4 and the EMP ( <b>TR010040/APP/7.7 Rev 2</b> ).
1.8.33		Art 45: Please fully justify this article, bearing in mind there are already rights of appeal to a magistrates' court under s60(7) and s61(7) of the Control of Pollution Act 1974, and indicate whether it has been used in any other DCOs.	<p>The intention of this article is to provide a swift appeal process in circumstances where a local authority issues a notice under section 60, or does not grant consent or grants conditional consent under section 61, of the Control of Pollution Act 1974. Its aim is to streamline the appeal process, thereby minimising the potential for unnecessary delay to the scheme. It is felt appropriate to provide a modern mechanism for this process, to avoid placing a further burden on the Magistrates Court. It may also be that the Magistrates Court is not be able to provide listings for appeals within a timeframe that does not impact on the scheme timetable.</p> <p>This article was not included in the model provisions but was included in the A14 Cambridge to Huntingdon Improvement Scheme Development Consent Order 2016 (2016 No. 547) as article 44. It has also been included in other, non-highway orders. See for instance paragraph 4 of Schedule 17 to The Thames Water Utilities Limited (Thames Tideway Tunnel) Order 2014 No. 2384)</p>
1.8.34		Art 48(2): Please confirm that this relates to any documents amended post the ExA's recommendation to the SoS rather than to any amended documents submitted during the course of the Examination (please also note later question on Schedule 10).	The Applicant confirms that the provisions of Article 48(2) would apply to documents amended post recommendation by the ExA.



Question number	Doc ref & question to	Question	Applicant's Response
<b>8. Draft Development Consent Order (dDCO)</b>			
1.8.35		Art 48: Should the certified plans and documents be made publicly available? If so, how should this be delivered, and for what length of time?	<p>The Explanatory Note in the dDCO states:</p> <p><i>A copy of the plans, engineering drawings and sections, book of reference and environmental statement mentioned in this Order and certified in accordance with article 48 (certification of documents, etc.) may be inspected free of charge during working hours at Highways England, Bridge House, 1 Walnut Tree Close, Guildford, Surrey GU 1 4LZ.</i></p> <p>The documents are held indefinitely by the Applicant.</p>
1.8.36		Art 50: Please clarify the reason why it would fall on the President of the Institution of Civil Engineers to appoint an arbitrator should parties not agree on one?	<p>The President of the Institution of Civil Engineers is the person that a large number of made Orders under the 2008 Act relating to transport schemes would be looked to appoint an arbitrator in the event of the parties not agreeing the identification of the arbitrator. The Applicant believes that both its own preference and the significant volume of precedent suggests that the President of the Institution of Civil Engineers is the appropriate person to carry out this function if required.</p>
1.8.37		Art 50: Should the SoS be specifically excluded from this article?	<p>The Secretary of State is not excluded from other Orders containing similar provisions insofar as the Applicant has discovered. The Applicant believes it is appropriate to retain the wording as currently drafted therefore.</p>
<b>Questions / comments relating to Requirements (R):</b>			
1.8.38		R3: This requirement is made from a single sentence of 8 lines which arguably makes it difficult to follow and interpret. Should it be better punctuated and made clearer?	<p>The wording is precededented in a number of other similar orders. Whilst noting the comment, the applicant does not propose to revise the drafting as it is familiar to the Secretary of State.</p>
1.8.39		R3: Notwithstanding the above, should this requirement make provision for the detailed design of some aspects of the Proposed Development to be submitted to and approved by the SoS after consultation with relevant parties (for example bridges, given that these would be prominent features)?	<p>The Requirement is in a form common to, or at least in similar terms as, a number of recently made Highways England Orders – see for instance A303 (Amesbury to Berwick Down) Development Consent Order 2020 (2020 no. 1297) requirement 3; and requirement 3 of the A63 (Castle Street Improvement, Hull) Development Consent Order 2020 (2020 no. 556). It was not anticipated that additional consultation was required given the detail of design provided with the application.</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>8. Draft Development Consent Order (dDCO)</b>			
1.8.40		R4(1): Should this specify any other consultees, such as the EA? (The ExA also notes that the EA requests to be a consultee on this requirement within its RR [RR-008]).	This has been corrected in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1.
1.8.41		R4(2)(f): Should this specify a "Site waste management plan" rather than "Outline site waste management plan"?	This has been corrected in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1
1.8.42		R4(2)(g): This specifies a "Soil Handling Management Plan". However, GS1 of the REAC [AS-009] cites a "Soil Management Plan to include Soil Resource Plan and Soil Handling Strategy". Please ensure consistency of plan titles.	This has been corrected in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1
1.8.43		R5(2): Should this requirement also make reference to the outline Landscape and Ecology Management Plan within the revised EMP [AS-009]?	This has been amended in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1. Consequential changes have been made to the definitions in paragraph 1 of Schedule 2 and to Schedule 10.
1.8.44		R8: Should this requirement make provision for the long-term management and maintenance of surface and foul water drainage systems?	The drainage will be maintained in accordance with Highways England's standard practices as an integral part of the overall scheme during its operational phase. A requirement is not needed therefore.
1.8.45		R8: Should this specify any other consultees, such as the EA? (The ExA also notes that the EA requests to be a consultee on this requirement within its RR [RR-008]).	This has been amended in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1, as requested by the Environment Agency
1.8.46	APP / NCC / HE	R9: Should this requirement make provision for the reporting and publishing of data?	This is through Requirement 4 of the dDCO, securing the provisions of the EMP ( <b>AS-009</b> ). The need to report is to be found in Table 6.1 of the EMP, line CH1-6.  It does not require further provision within Requirement 9.
1.8.47	APP / NCC / HE	R9: Should NCC and HE also be consulted on the written scheme of investigation?	This consultation is to be found in Table 6.1 of the EMP, line CH1-6 of the REAC
1.8.48		R10: Should this include more detail of what the traffic management plan should include?	The Requirement is in a form common to, or at least in similar terms as, a number of recently made Highways England Orders – see for instance A303 (Amesbury to Berwick Down) Development Consent Order 2020 (2020 no. 1297) requirement 11 and requirement 11 of the A303 Sparkford to Ilchester Dualling

Question number	Doc ref & question to	Question	Applicant's Response
<b>8. Draft Development Consent Order (dDCO)</b>			
			Development Consent Order 2021 (2021 No.125). The Applicant is therefore believes the wording is sufficiently detailed, subject to the response to 1.8.49 below
1.8.49		R10(1): Should this refer to the Traffic Management Plan to accord with the outline Traffic Management Plan?	This has been amended in the revised dDCO (TR010040/APP/3.1 Rev 1) submitted at Deadline 1. Consequential changes have been made to the definitions in paragraph 1 of Schedule 2 and to Schedule 10
1.8.50		R12: Does this requirement relate to the pond specified in W8 of the REAC [AS-009] and the pond labelled "Biodiversity pond" on the Masterplan [APP-118], rather than the infiltration basin?	This requirement relates to the biodiversity pond and not the infiltration basin.
1.8.51		R12: Following on from the above, should this requirement refer to W8 of the REAC [AS-009] if so?	This has been provided for in the revised dDCO (TR010040/APP/3.1 Rev 1) submitted at Deadline 1.
1.8.52		R12: Should this requirement make provision for the long-term management and maintenance of the pond?	Management and maintenance of the pond will fall within the landscape and ecology master plan secured by Requirement 4(2)(e) of the dDCO.
1.8.53		R12(1): Please correct "timetable3" typographical error.	This has been provided for in the revised dDCO (TR010040/APP/3.1 Rev 1) submitted at Deadline 1.
1.8.54		R12(2): Please change "Work no. 13" to "Work No. 13" and check if this error occurs elsewhere and change if necessary.	This has been provided for in the revised dDCO (TR010040/APP/3.1 Rev 1) submitted at Deadline 1.
1.8.55		R14(2): Why is it considered appropriate for the agreement of the SoS to be deemed after the period specified?	The Applicant believes it is appropriate for all parties to have clear and certain time limits to avoid undue delay and potential commercial implications of a delayed decision. The time limit is reasonable and has been accepted in a number of made Orders.
1.8.56		R14 (3)(c): should the last part of this paragraph be on a separate line?	This has been provided for in the revised dDCO (TR010040/APP/3.1 Rev 1) submitted at Deadline 1.
1.8.57	BDC NCC EA HE NE	R18: Do the parties consider 10 business days sufficient time to respond to consultation on the discharge of requirements?	Response not required from the Applicant

Question number	Doc ref & question to	Question	Applicant's Response
<b>8. Draft Development Consent Order (dDCO)</b>			
<b>Questions / comments relating to Schedules (Sch):</b>			
1.8.58		Sch 1 lists further development under (a) to (e). Please justify the necessity for such development, including with regard to viaducts, pumping stations, cofferdams, outfalls, culverts and works to alter watercourses?	This drafting is preceded in a number of other made Orders and was considered at length between the Applicant and its appointed contractors. However, on further reflection the revised dDCO submitted at deadline 1 omits "viaducts" from paragraph (d) of schedule 1. Paragraph (g) of Schedule 1, referring to works to watercourses, has also been removed.
1.8.59		Sch 3, Part 1, column (2), first section: This cites "A 4.566 kilometre length of new highway...". It would be preferable to use measurements consistently. Metres is used elsewhere. Please rectify.	This has been provided for in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1.
1.8.60		Sch 3, Part 1, column (2), first section: Notwithstanding the above, how does the measurement of "4.566 kilometres" relate to the measurement of "4570 metres" in Schedule 1, Work No. 1? Please explain or amend if necessary.	The centreline of the dual carriageway measures as 4570 metres, the eastbound carriageway measures 4566 metres and the westbound carriageway measures 4574 metres. The measurement of "4.566 kilometres" has been amended to 4570 metres in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1.
1.8.61		Sch 3, Part 1: some of the boxes within the table are not enclosed, for example at the top of page 49 and halfway down page 51. Please rectify this.	This has been provided for in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1.
1.8.62		Sch 3, Part 4, column (3): Does "Removal of Restricted Road Status" effectively mean subject to the national speed limit ie 70mph in this case?	Yes. A road with street lighting is a restricted road under Section 82 of the Road Traffic Regulation Act 1984 and automatically has a speed limit of 30 miles per hour under Section 81 of that Act. Removal of restricted road status removes that "automatic" speed limit and, in the absence of any other order, applies the national speed limit. For cars that speed limit is 70 mile per hour on dual carriageway and 60 miles per hour on a single carriageway.
1.8.63		Sch 3, Part 5: Column (2) is titled "Road name, number and length". However, this column does not state any road lengths. Please explain or rectify this.	The lengths of road affected are stated in column (4). We have therefore deleted the word "length" from the title of column (2).
1.8.64		Sch 7 refers to 'laydown areas'. However, such areas are not mentioned in Sch 1 (Authorised Development). What is the reason for this?	Schedule 1 paragraph (j) has been amended in the revised dDCO ( <b>TR010040/APP/3.1 Rev 1</b> ) submitted at Deadline 1, to refer to laydown areas

Question number	Doc ref & question to	Question	Applicant's Response
<b>8. Draft Development Consent Order (dDCO)</b>			
1.8.65		Sch 9, Part 1, 7(1): Correct the end of the paragraph which has incorrect words "Error! Reference source not found." inserted and words missing.	This has been provided for in the revised dDCO (TR010040/APP/3.1 Rev 1) submitted at Deadline 1.
1.8.66		Sch 10: Please ensure consistency with capital letters.	This has been provided for in the revised dDCO (TR010040/APP/3.1 Rev 1) submitted at Deadline 1.
1.8.67		Sch 10: "environmental statement TR010040/APP/6.1 – 6/3" should be "Environmental statement TR010040/APP/6.1 – 6.3".	This has been provided for in the revised dDCO (TR010040/APP/3.1 Rev 1) submitted at Deadline 1.
1.8.68		Sch 10: Is this list of documents to be certified complete or should other documents (including, but not necessarily limited to, Location Plan, Crown Land Plans, Drainage and Surface Water Plan, Statement Related to Statutory Nuisance, Report to Inform HRA, Transport Assessment, Scheme Design Report, outline Traffic Management Plan, outline Landscape and Ecology Management Plan and Equalities Implications Assessment) be included?	The Applicant has added the outline Traffic Management Plan. The outline Landscape and Ecology Management Plan is an annex to the EMP, and therefore included. The Applicant does not believe that other documents need to be included in certification as, when considering the revised dDCO (TR010040/APP/3.1 Rev 1) submitted at Deadline 1 none of the other listed documents are referred to in the dDCO. The Applicant will keep the position under review.
1.8.69		Sch 10: Please ensure this list is kept updated with the correct versions of documents.	The Applicant notes this requirement and will endeavour to do so.
<b>Explanatory Memorandum (EM)</b>			
1.8.70		Art 8: The EM doesn't describe the 3 metre limits of deviation laterally and from commencement and termination as set out in this article of the dDCO. Please rectify this.	This has been amended and a revised Explanatory Memorandum (clean and tracked changes versions) provided (TR010040/APP/3.2 Rev 1) submitted at Deadline 1.
1.8.71		Paragraph 4.7.2: Should this refer to Art 19(4) rather than 19(5)?	This has been amended in the revised Explanatory Memorandum (TR010040/APP/3.2 Rev 1) submitted at Deadline 1.
1.8.72		Paragraph 4.8.1: The word "cope" appears to be a typographical error. Please rectify this.	This has been amended in the revised Explanatory Memorandum (TR010040/APP/3.2 Rev 1) submitted at Deadline 1 – the word should be (and now is) "scope".
1.8.73		Art 17(6) does not appear to have been explained in the EM.	This has been amended in the revised Explanatory Memorandum (TR010040/APP/3.2 Rev 1) submitted at Deadline 1.
1.8.74		Paragraph 5.5(m) relates to R13 rather than R12 and an explanation of R12 (new pond) has been omitted. Please rectify this.	This has been amended in the revised Explanatory Memorandum (TR010040/APP/3.2 Rev 1) submitted at Deadline 1.

Question number	Doc ref & question to	Question	Applicant's Response
<b>8. Draft Development Consent Order (dDCO)</b>			
1.8.75		Section 8 contains an error. Please rectify this.	This has been amended in the revised Explanatory Memorandum (TR010040/APP/3.2 Rev 1) submitted at Deadline 1.

Question number	Doc ref & question to	Question	Applicant's Response
<b>9. Geology and Soils</b>			
1.9.1		ES Chapter 9: Geology and Soils [APP-047], paragraph 9.7.13, states that an agricultural land survey would be carried out prior to the construction of the Proposed Development. Where is this secured, and if it is not, should it be?	This is presented in ES Chapter 9: Geology and Soils (APP-047) and within GS3 of the Record of Actions and Environmental Considerations section of the Environmental Management Plan (EMP)( <b>AS-009</b> ). Compliance with the EMP is secured by requirement 4 in the dDCO.
1.9.2		ES Chapter 9: Geology and Soils [APP-047], paragraph 9.8.10, assesses the magnitude of impact of the temporary loss of Grade 1 agricultural land (40.2 ha according to Table 9-5) as 'moderate'. Notwithstanding the temporary nature of this loss, please explain further why the magnitude of impact, before mitigation, would not be considered 'major', as per Table 9-3, given that this would appear to result in the physical removal of >20 ha of Grade 1 agricultural land?	As per Table 3.12 in DMRB LA 109, moderate is due is due to the temporary land take resulting in the potential for reduction of soil functions due to degradation, compaction and erosion of soil resource during the construction period. This is detailed in para 9.8.10 of ES Chapter 9 ( <b>APP-047</b> ).
1.9.3		To ensure restored agricultural land functions effectively and as per its baseline condition, how would monitoring and any necessary remediation measures (as cited in section 9.11 of ES Chapter 9: Geology and Soils [APP-047]) be secured?	This is presented in ES Chapter 9: Geology and Soils ( <b>APP-047</b> ) and within GS3 of the Record of Actions and Environmental Considerations section of the Environmental Management Plan (EMP)( <b>AS-009</b> ). This states that soils will be stripped, stored and replaced to their baseline condition, as far as practicable. Compliance with the EMP and Soil Management Plan is secured by requirement 4 in the draft DCO (TR010040/APP/3.1 Rev 1) submitted at Deadline 1.

Question number	Doc ref & question to	Question	Applicant's Response
<b>10. Landscape and Visual</b>			
1.10.1	BDC	Is BDC satisfied that the viewpoints and photomontage locations selected (as shown on ES Figure 7.4 [APP-057]) are adequately representative of the Proposed Development, noting that the Applicant states that no response was received from the local authority to a further consultation in July 2020 in respect of some changes relating to the diversion of a medium pressure gas pipeline (paragraph 7.4.18 of ES Chapter 7: Landscape and Visual Effects [APP-045])?	Response not required from the Applicant
1.10.2	BDC / NCC	Is BDC and NCC satisfied with the Masterplan [APP-118] and the proposed species mix as shown on the final page of the Masterplan?	Response not required from the Applicant
1.10.3	BDC	Is BDC satisfied with the Applicant's approach to defining landscape character areas as per ES Chapter 7: Landscape and Visual Effects [APP-045] paragraphs 7.7.24 - 7.7.25 and Table 7-3, ES Appendix 7.4 [APP-081] and ES Figure 7.3 [APP-057]?	Response not required from the Applicant
1.10.4	BDC	Is BDC satisfied that G2 of the REAC [AS-009] is sufficient to ensure the minimisation of the effects of lighting?	Response not required from the Applicant
1.10.5		The General Arrangement Plans [APP-009] indicate the locations of numerous lighting columns. Please explain the necessity for all of these, including on the proposed B1140 overbridge and around the Yarmouth Road junction (noting that the Lighting Assessment [APP-085], paragraph 11.7.9, identifies some moderate and major adverse effects for some residential receptors along Yarmouth Road on operation).	As described in the Scheme Design Report ( <b>APP-122</b> ) lighting is proposed at the Yarmouth Road as road safety mitigation. The Lighting at the B1140 junction is proposed to be equivalent to the existing provision.
1.10.6		ES Chapter 7: Landscape and Visual Effects [APP-045], paragraphs 7.10.40 and 7.10.42, cite lighting column height would be either 8 or 10 metres in height. Where are such heights secured?	The maximum parameters used for the environmental assessment are included in the scheme description detailed in ES Chapter 2: Scheme Description ( <b>APP-040</b> ). This includes lighting column height to max 10m.
1.10.7		Please explain how the forms of the two new bridges over the proposed A47 have been considered to minimise landscape and visual effects.	During optioneering, undertaken as part of the design of the overbridges, environmental specialists provided input including in respect of potential landscape and visual effects. Considerations included reduced height/deck depth and size of the embankments.



Question number	Doc ref & question to	Question	Applicant's Response
<b>10. Landscape and Visual</b>			
1.10.8		<p>Given that the bridges would be prominent features of the Proposed Development, should there be a requirement within the dDCO for their detailed design, in consultation with BDC and / or subject to design review by Highway England's Strategic Design Panel?</p>	<p>Requirement 3 in the draft DCO (<b>TR010040/APP/3.1 Rev 1</b>) 'Detailed design' sets out that the <i>authorised development must be designed in detail and carried out so that it is compatible with the preliminary scheme design shown on the works plans and engineering drawings and sections unless otherwise agreed in writing by the Secretary of State, following consultation with the relevant planning authority on matters related to its functions.</i></p> <p>Should the design of the structures change from that shown the Applicant would have to consult with Broadland District Council.</p> <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>
1.10.9		<p>ES Appendix 7.3 [APP-080] paragraph 7.2.2 notes that "The ZTV model does not take into account the effect of removal of existing vegetation on the potential extent of visibility of the Proposed Scheme." To what extent might the removal of vegetation affect the visibility of the Proposed Development, and if this is not taken into account in the Zone of Theoretical Visibility, has the worst case scenario been adequately assessed?</p>	<p>As evidenced in ES Appendix 7.3 ZTV and Verified Photomontage Methodology (APP-080) Section 7.3, the ZTV is a tool to support other methods of analysis, including site checking of views, to inform an overall understanding of potential visibility of the Proposed Scheme. The visual assessment does not therefore rely solely on the ZTV as a measure of potential visibility and is instead used as a supporting indicator.</p> <p>The removal of existing vegetation within the 3D model would not substantially alter the graphical extent of ZTV shown in ES Figure 7.4 Visual Context (APP-057). The visibility points that generate the ZTV graphic within the 3D model are located every 20m along the route of the Proposed Scheme (ES Appendix 7.3 ZTV and Verified Photomontage Methodology (APP-080) paragraph 7.2.2). This density of reference points, combined with the typically open farmland setting (ES Chapter 7 Landscape and Visual Effects (APP-045) paragraph 7.7.8) means that even with the current ZTV</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>10. Landscape and Visual</b>			
			<p>model showing the existing vegetation retained the 3D model doesn't notably obscure potential intervisibility between the Proposed Scheme and surrounding area. The ZTV extents shown in ES Figure 7.4 (APP-057) can therefore be taken as representational of the extents of visibility of the Proposed Scheme.</p> <p>With the above recognition that the landscape and visual assessment is informed by several considerations in addition to the ZTV it is confirmed that the worst-case scenario has been fully considered within the scope of the assessment reported in ES Chapter 7 Landscape and Visual Effects (APP-045) .</p>
1.10.10		<p>In respect of the Arboricultural Impact Assessment Plan within ES Appendix 7.7 [APP-084], what do the following represent:</p> <ul style="list-style-type: none"> <li>a) hatched blue areas;</li> <li>b) hatched green areas;</li> <li>c) solid red areas (for example, to west of Yarmouth Road junction);</li> <li>d) yellow lines; and</li> <li>e) blue / yellow shaded circles?</li> </ul>	<ul style="list-style-type: none"> <li>a) Groups of trees identified using OS map, topo and ecological survey data (not BS5837)</li> <li>b) Groups of BS5837 Category B trees</li> <li>c) Worst case scenario of removal of existing trees</li> <li>d) Yellow 'lines' is in fact text. We have updates</li> <li>e) Tree removal exclusion area for individual trees</li> </ul> <p>ES Appendix 7.7 has been amended and resubmitted at Deadline 1 (TR010040/APP/6.2 rev 1).</p>
1.10.11		<p>The numbering of trees and groups of trees on the Arboricultural Impact Assessment Plan within ES Appendix 7.7 [APP-084] is difficult to read given the small text size, poor definition and on occasion, yellow colour on white background. Can this document please be resubmitted to address this?</p>	<p>ES Appendix 7.7 has been amended and resubmitted at Deadline 1 (TR010040/APP/6.2 rev 1).</p>
1.10.12		<p>The Arboricultural Impact Assessment Plan within ES Appendix 7.7 [APP-084] identifies some trees and groups of trees within the Order limits which have not been surveyed. What is the reason for this and will this information be forthcoming?</p>	<p>A number of trees within the Order Limits were not included in 2018 survey.</p> <p>These trees they have been marked on the AIAP and recorded in ES Appendix 7.7 (<b>APP-084</b>) Table 3 for guidance.</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>10. Landscape and Visual</b>			
			<p>Further BS5837 surveys are included in LV3 of the REAC as part of the EMP (<b>TR010040/APP/7.7 Rev 2</b>) and secured by Requirement 4 to the draft DCO (<b>TR010040/APP/3.1 Rev 1</b>).</p> <p>Where trees have been assessed as unaffected, no works will take place within 15m of the trees (this is shown in the Masterplan (<b>TR010040/APP/6.8 Rev 1</b>)), which is the maximum root protection area set within BS5837.</p> <p>The conclusions of the EIA have not been affected by this precautionary approach.</p>
1.10.13		<p>Sheet 1 of 7 of the Masterplan [APP-118] identified locations where vegetation replacement species would be agreed with individual property owners.</p> <p>a) How would this be achieved?;</p> <p>b) What size and species of vegetation could potentially be planted?; and</p> <p>c) Should agreement not be reached between the parties, how would this be resolved?</p>	<p>The Masterplan has been amended (<b>TR010040/APP/6.8 Rev 2</b>) to indicate that the relevant owners will be consulted with. Whilst agreement will be sought with the relevant owners, if it is not possible to agree the provision of replacement vegetation then the Applicant will look to provide appropriate vegetation for the location having regard to the existing vegetation removed, the reasonableness of replacing that vegetation, the speed at which replacement species will grow, the likely level of maintenance required for the replacement vegetation, and cost of the proposed replacement vegetation.</p>
1.10.14		<p>The Arboricultural Impact Assessment Plan within ES Appendix 7.7 [APP-084] identifies the proposed removal of some trees from within G21. These are located between the existing A47 and the White House / Coach House. Appendix 2 of the Arboricultural Impact Assessment suggests that G21 provides screening between these properties and the A47. The Masterplan [APP-118] does not appear to show the replacement of the trees to be removed from this group. Is there scope to do so?</p>	<p>A small section of G21 is to be removed due to a clash with elements with the Proposed Scheme and construction area. A noise barrier is proposed in this location, which would provide improved screening from the road at this location. Tree removal shown indicates a worst-case scenario.</p> <p>The Masterplan has been updated with more vegetation screening at this location and resubmitted at Deadline 1 (<b>TR010040/APP/6.8 rev 1</b>).</p>
1.10.15		<p>Please explain why the assessment considers Year 15 in summer (photomontages and paragraph 7.4.7 of ES Chapter 7: Landscape and Visual Effects [APP-045]) and how this represents a worst-case scenario in terms of landscape and visual effects?</p>	<p>The assessment considers year 15 in summer as this is defined in DMRB LA107 Landscape and Visual Effects paragraph 2.6 subsection 3 as the timeframe for assessing the project's potential effects against the baseline. The summer year 15 timeframe is not intended to be taken as a worst-case scenario but is in direct</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>10. Landscape and Visual</b>			
			<p>response to the requirements of LA107 as set out above. Year 15 summer is the measure of a point in time by which Proposed Scheme mitigation planting will have established and when it will be most effective (when in leaf). Year 15 summer is therefore the point at which the effectiveness of mitigation objectives can be considered in the assessment of landscape and visual effects.</p>
1.10.16		<p>Following on from the above question, the final sentence of ES Chapter 7: Landscape and Visual Effects [APP-045], paragraph 7.12.6, states that "The potential for visibility of the Proposed Scheme would be greater during winter months following leaf fall but would not result in notable variation in the significance of visual effect". Please provide either:</p> <p>a) A detailed explanation for this contention; or</p> <p>b) Photomontages for Year 15 during winter months to support the contention.</p>	<p>The assessment has, as outlined in paragraph 7.4.7 of Chapter 7: Landscape and Visual Effects [APP-045], been undertaken to take account of year one winter and year 15 summer. This accords with DMRB LA107 paragraph 2.6 which states that an "Assessment of the project's potential effects shall examine and assess (sub-section 3) a winter scenario in the year of opening, and a summer scenario – fifteenth year of operation to traffic".</p> <p>Interim Advice Note 135/10 Landscape and Visual Effects Assessment, which precedes the current LA107 standard and provided the established basis for highway assessment over many years, states in Annex 2, paragraph 3.1 that "The assessment of visual effects should be undertaken for the following scenarios:</p> <ul style="list-style-type: none"> <li>• A winter's day in the year that the project would open to traffic or be fully operational (i.e. with noise/visual screens and mounds in place but before any planted mitigation has begun to take effect). This is usually a reflection of the operationally non-fully mitigated/maximum visibility scenario;</li> <li>• A summer's day in the fifteenth year after opening (i.e. when the planted mitigation measures can be assumed to be substantially effective). This is usually a reflection of the near fully mitigated scenario under normal conditions." <p>The focus of assessment is therefore consistent with the above recognised DMRB standard and best practice. The final sentence in ES Chapter 7: Landscape and Visual Effects [APP-045], paragraph 7.12.6 is included to acknowledge that the influence of seasonality has been considered. Additional reporting of effects outside of the timeframes defined in the assessment have not</p> </li></ul>

Question number	Doc ref & question to	Question	Applicant's Response
<b>10. Landscape and Visual</b>			
			been undertaken because the potential for seasonal variation in views is not considered to affect the conclusions of the Environmental Statement.

Question number	Doc ref & question to	Question	Applicant's Response
<b>11. Material Asset and Waste</b>			
1.11.1		ES Chapter 10: Material Assets and Waste [APP-048], paragraph 10.9.12, sets out opportunities for the re-use of surplus excavated, recycled or recovered material outside of the Order limits. Have any of these opportunities been investigated further, what is the likelihood of their implementation and how would such opportunities be secured?	<p>The Principal Contractor will ensure any surplus materials remain as far as possible in the chain of utility i.e. used either within the Scheme itself or elsewhere if feasible pursuant to statements in the ES, it is very unlikely that the Scheme will provide any significant opportunity to generate materials which will not be incorporated in the works.</p> <p>Opportunities such as the reuse of asphalt from the existing A47 are still being explored by the Principal Contractor but have not been developed in detail at this stage.</p>
1.11.2		Table 10-6 of ES Chapter 10: Material Assets and Waste [APP-048] sets out estimated quantities of materials and its recycled content to be imported to the site for construction of the Proposed Development. However, to what degree, where and how would the Proposed Development utilise or reuse any existing materials within the Order limits to limit the need to import these?	<p>Design and construction planning includes consideration of options to ensure that the materials 'won' within the site are used and incorporated in the Scheme, so that importation of materials is minimised.</p> <p>Examples are provided below and it is expected that other options may be identified as the detailed design progresses:</p> <ol style="list-style-type: none"> <li>1. The excavated soils, based on current available data, are slightly outside standard specification, but it is expected that they will be suitable for re-use with minimal processing and treatment (e.g. physical processing, lime modification). Additional ground investigation currently being carried out includes provision for further specific and targeted data to support and provide assurance around this approach.</li> <li>2. The earthworks specification will be based on the Applicant's standards but will be developed, where possible, to be take account of ground materials present within the Scheme and thereby support material reuse.</li> <li>3. The geotechnical design of earthworks, and earthworks related elements, will be based on the reuse of site won materials, rather than including elements that would otherwise require imported soils (e.g. granular soils in earthworks/structure transitions, use of MSE elements in structures which require higher performance materials that would have to be imported).</li> </ol>

Question number	Doc ref & question to	Question	Applicant's Response
<b>11. Material Asset and Waste</b>			
			<p>4. Reuse of recycled materials and secondary aggregates where these are available from site-won material and are suitable for use. to avoid the importation of primary earthworks materials consideration is being given to more innovative solutions for earthworks construction e.g. recycled tyre bails (PAS108).</p> <p>It is unlikely that it be possible to completely avoid the importation of materials however the design is predicated on the reuse of conventional earthworks materials from within the site</p>
1.11.3	NCC	It is understood that the Proposed Development intersects a Mineral Safeguarding Area for sand and gravel. Does NCC consider that this designation has any implications for the Proposed Development and if so, what are they?	Response not required from the Applicant
1.11.4		Table 10-6 (relating to quantities of materials during construction) of ES Chapter 10: Material Assets and Waste [APP-048] in the 'Activity' column refers to 'Site preparation, earthworks and construction'. How does this relate to Table 10-7 (relating to waste generated during construction) given that this table is split into 'Site demolition, preparation and earthworks' and 'Site construction' in the 'Activity' column and that a 5% wastage rate is applied to main construction materials only?	<p>Table 10-6 in ES Chapter 10: Material Assets and Waste (APP-048) is the estimated quantity of material needed to build the Scheme as part of the site preparation, earthworks and construction.</p> <p>Table 10-7 is the estimated quantity of waste generated, and separated into two stages:</p> <ul style="list-style-type: none"> <li>• Site demolition, preparation and earthworks</li> <li>• Site construction</li> </ul> <p>The waste from the latter, 'site construction' is calculated from a worst case 5% wastage rate from the material needed to build (shown in Table 10-6) i.e. 5% of 7,880 tonnes is 395 (as shown in Table 10-7).</p>
1.11.5		Please explain where the quantum of waste of asphalt (7180 tonnes), unbound aggregate (512250 tonnes) and concrete (116.17 tonnes) would arise from, as set out under activity 'Site demolition, preparation and earthworks' in Table 10-7 of ES Chapter 10: Material Assets and Waste [APP-048].	The value for unbound aggregate was an error within Chapter 10 ( <b>APP-048</b> ). This has been corrected from 512,250 tonnes to 20,259 tonnes and the chapter amended and submitted at Deadline 1 (clean and tracked changes). This has not affected the conclusions of the significance identified in the chapter.

Question number	Doc ref & question to	Question	Applicant's Response
<b>11. Material Asset and Waste</b>			
1.11.6		The outline Site Waste Management Plan [APP-102] refers to the 'Environmental Permitting (England and Wales) Regulations 2010'. This should be the Environmental Permitting (England and Wales) Regulations 2016. Please amend as necessary.	This comment has been noted and the Outline Site Waste Management Plan (ES Appendix 10.3 ( <b>APP-102</b> ) amended and submitted at Deadline 1 (clean and tracked changes versions) ( <b>TR010040/APP/6.2</b> ).



Question number	Doc ref & question to	Question	Applicant's Response
<b>12. Noise and Vibration</b>			
1.12.1		<p>ES Chapter 11: Noise and Vibration [APP-049], paragraph 11.5.6, sets out that the maximum number of lorry trips per day for any construction phase would be 150 (or 300 movements). Paragraph 11.8.26 sets out that 'Table 2.3' in ES Chapter 2: The Proposed Scheme [APP-040] provides a summary of likely HGV movements (paragraph 11.10.9 refers to 'Table 2' and N6 of the REAC [AS-009] refers to Table 2-3). Please clarify the following:</p> <p>a) Whether the references to 'Table 2.3', 'Table 2' and 'Table 2-3' in the various documents are correct or whether they should rather refer to 'Table 2-4'?</p> <p>b) Table 2-4 of ES Chapter 2 highlights crossovers between construction phases; month 17 is included in phases 1, 3, 4, 5 and 6. Accounting for the maximum number of lorry trips in these phases, this table appears to suggest that there could be up to 425 HGV trips per day / 850 movements in month 17. However, in paragraph 11.5.6 of ES Chapter 2, the maximum number of lorry trips on which construction noise is determined is 150 / 300 movements. Please clarify this discrepancy and if necessary, update the ES and the noise and vibration assessments to account for this (including Table 11-6 of ES Chapter 11).</p>	<p>a) ES Chapter 11: Noise and Vibration (<b>APP-049</b>) Para 11.8.26 and N6 of the REAC incorrectly read Table 2.3 (or 2-3). The correct reference is Table 2.4 of ES Chapter 2 (<b>APP-040</b>). ES Chapter 11: Noise and Vibration (<b>APP-049</b>) Paragraph 11.10.9 incorrectly reads Table 2. The correct reference is Table 2.4 of ES Chapter 2: The Proposed Scheme (<b>APP-040</b>). ES Chapter 11: Noise and Vibration (previously <b>APP-049</b>) has been amended and submitted at Deadline 1.</p> <p>b) Table 2-4 provides the estimated maximum lorry trips per day per phase. The maximum lorry tips per day will not occur for the full duration of any phase and phases may overlap. Table should be read as per phase and not as an overall programme.</p> <p>With reference to paragraph 11.5.6, the phase with the maximum number of lorry trips, Phase 1, which includes for the bulk of the construction activities, has been used as the input into the construction noise assessment.</p>
1.12.2		<p>ES Chapter 11: Noise and Vibration [APP-049], paragraph 11.5.1. states that most construction would take place during weekdays between 0700-1900 hours and on Saturdays between 0700-1300 hours. Paragraph 11.9.2 sets out that any work outside these hours would be subject to a noise and vibration assessment, agreed with the LPA and mitigated where necessary. How would this be achieved and secured?</p>	<p>This is included within G1 of the Record of Actions and Environmental Considerations section of the Environmental Management Plan (EMP) (<b>TR010040/APP/7.7 Rev 2</b>). Compliance with the EMP will be secured by Requirement 4 in the DCO.</p> <p>The Contractor will seek agreement with the relevant local authorities through a Control of Pollution Act Section 61 agreement. This is an application for prior consent for work on construction sites and need to include a description of the steps proposed to be taken by the Contractor to minimise noise resulting from the works.</p> <p>The supporting work behind a Section 61 Agreement normally includes assessment of noise and vibration due to construction.</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>12. Noise and Vibration</b>			
			The local authorities then have the power to impose conditions on any consent for these works.
1.12.3		Table 11-11 of ES Chapter 11: Noise and Vibration [APP-049] specifies permanent noise barriers. Please provide further justification on the adequacy of noise barrier No 4, noting that a concern in respect of its effectiveness has been raised in a RR [RR-019].	<p>Noise barriers are incorporated within the design of the proposed scheme. These barriers have been specified to avoid significant effects due to changes in road traffic noise that are expected to occur due to the Proposed Scheme. The significance of the potential effects due to changes in road traffic noise has been evaluated in accordance with DMRB LA111: Noise and Vibration, as described in ES Appendix 11.2: Legislation and policy framework (APP-105).</p> <p>A conclusion on the significance with embedded mitigation in place (including barrier 4) at Hall Cottages is presented in the fourth row of Table 11-14 of ES Chapter 11: Noise and Vibration (APP-049).</p>
1.12.4		ES Chapter 11: Noise and Vibration [APP-049], paragraph 11.9.2, sets out that resurfacing works using low noise road surface would be completed before the operation of the Proposed Development, to mitigate noise effects on two residential receptors (9 and 44 Highview Close). Given that this would be outside the Order limits, how confident can the ExA be that this would be implemented?	Highways England's Operations Directorate have confirmed that the works to lay the low noise surfacing within the area are still on target for Sept - Oct 2021.
1.12.5		ES Chapter 11: Noise and Vibration [APP-049], paragraph 11.9.8, highlights the importance of communication with the public during construction to assist with lessening potential effects of noise. How would this be achieved and where is this secured?	<p>Commitment G8 in the REAC, within the EMP (<b>TR010040/APP/7.7 Rev 2</b>) sets out:</p> <p><i>Communication with local residents will take place during construction to highlight potential periods of disruption. This will be via appropriate and expedient means of communication, and an appointed Community Relations Officer.</i></p> <p><i>The Highways England Customer Contact Centre will be available to deal with queries and complaints from the public. An information line will be staffed and a complaint management system in place, used on other major infrastructure projects, to ensure complaints are investigated, action is taken and the complainant receives a response.</i></p>

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<b>12. Noise and Vibration</b>			
			<p><i>A Community Relations Officer will be appointed who will be responsible for these specific tasks will prepare a community relations strategy to outline how these tasks will be undertaken.</i></p> <p>The EMP (second iteration) will include also included a Construction Communication Strategy (Annex B6).</p> <p>The EMP and the measures within it are secured by Requirement 4 to the Draft DCO (<b>TR010040/APP/3.1 Rev 1</b>)</p>
1.12.6		<p>ES Chapter 11: Noise and Vibration [APP-049] identifies that there would be a long-term significant adverse effect for 55 residential receptors and one non-residential along the B1140 (High Road) and Yarmouth Road in respect of noise. Notwithstanding information provided in paragraph 11.9.22 and 11.10.21, have all options for mitigating such effects been considered, noting that the National Networks NPS, paragraph 3.3, states that the Government expects applicants to avoid and mitigate environmental and social impacts?</p>	<p>Mitigation of operational noise effects was considered as part of the Environmental Impact Assessment process. The effects identified occur due to the redistribution of traffic along the High Road and Yarmouth Road that is predicted within the transport model.</p> <p>Adverse changes in road traffic noise are predicted to occur at receptors close to Yarmouth Road and the B1140, however road traffic noise levels with the Proposed Scheme are predicted to be below the SOAEL at all of these receptors. Provision of acoustic barriers adjacent to this road is not practical since it would obstruct access to driveways. These roads are maintained by the local highways authority and Highways England is not responsible for the selection of road surface material type. As reported in the ES Chapter 11: Noise and Vibration (<b>APP-049</b>), no further mitigation for these receptors was deemed necessary.</p> <p>The Case for the Scheme (<b>APP-120</b>) and the Scheme Design Report (<b>APP-123</b>) set out how environmental and other factors considerations have been considered in the evolution of the Scheme. The ES (<b>TR010040/APP/6.1</b>) identifies how environmental effects have been mitigated.</p>
1.12.7		<p>ES Chapter 11: Noise and Vibration [APP-049] differentiates between noise effects in the "short-term" and in the "long-term". Please clarify:            a) the period of what is considered to be 'short-term' and 'long-term'; and</p>	<p>a) These terms are defined within the DMRB LA111: Noise and Vibration and within ES Appendix 11.1: Glossary of terms (<b>APP-104</b>). "Short-term" is the noise change in the year of opening for the Proposed Scheme (Do Minimum Opening Year versus Do-Something Opening Year). "Long-term" is the noise change based</p>

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<b>12. Noise and Vibration</b>			
		<p>b) the reasons why some receptors would experience significant adverse effects in the 'short-term' but not in the 'long-term'.</p>	<p>on the +15 year assessment (for example Do-Minimum Opening Year against Do-Something Future Year).</p> <p>b) The magnitude of impact due of changes in road traffic noise is determined in accordance with the DMRB LA111 and Table 11-8 and 11-9 of ES Appendix 11.2: Legislation and policy framework (<b>APP-105</b>). Impact magnitude categories originate from research into the perceptibility of changes in road traffic noise (on opening, and over the long-term). Due to the different way that short-term and long-term noise changes are perceived, it is often the case that the change in road traffic noise on scheme opening is of a greater impact magnitude than those determined over the long-term. This is the case for some receptors in the vicinity of the Proposed Scheme. Differences in road traffic parameters (and therefore predicted road traffic noise levels) can also occur between scenarios which can influence the assessment.</p> <p>The significance of the potential effects due to changes in road traffic noise has been evaluated in accordance with DMRB LA111: Noise and Vibration, as described in ES Appendix 11.2: Legislation and policy framework (<b>APP- 105</b>). This involves consideration of the impact magnitude over both the short-term and long-term. Firstly, road traffic noise changes in the short-term are used within an initial assessment to define where significant effects could occur. Then, the final significance is determined considering aspects such as context, absolute road traffic noise level, differences in impact magnitude over the short-term and long-term, etc, and a justification is then presented. This determination of final significance is application of the DMRB LA 111 approach (paras 3.57 to 3.63) and the justification for each receptor group is presented within Table 11-14 of ES Chapter 11 (<b>APP-049</b>).</p>

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<b>12. Noise and Vibration</b>			
1.12.8		ES Chapter 11: Noise and Vibration [APP-049], paragraphs 11.9.9 and 11.10.7 (and N6 of the REAC [AS-009]), suggest that alternative diversion routes would be adopted during the construction period to reduce adverse effects. However, ES Chapter 11 paragraph 11.5.3 and Table 3-9 and Figure 7 of the revised outline Traffic Management Plan [AS011] specify only one route. Please clarify this matter.	This has been amended and a revised outline Traffic Management Plan provided ( <b>TR010040/APP/7.8 Rev 2</b> submitted at Deadline 1).
1.12.9		ES Chapter 11: Noise and Vibration [APP-049] identifies that receptors R12 and R13 would experience significant residual noise effects during construction. Have all options for mitigating such effects been adequately considered?	<p>All reasonable and proportionate options for mitigation have been considered.</p> <p>The assessment identifies potential significant residual effects due to construction noise from earthworks and road formation works at these two receptors, primarily due to their proximity to the works.</p> <p>Significant effects would occur should works impact receptors for 10 or more days or nights in any 15 consecutive days or nights; or for a total number of days exceeding 40 in any 6 consecutive months. At this time there is no certainty on whether these durations threshold would be exceeded, therefore the assessment applies the precautionary principle, assuming this could happen.</p> <p>Measures to reduce environmental effects during the construction phase are set out in the <i>Environmental Management Plan Record of Environmental Actions and Commitments (AS-009)</i>. This includes the requirement for the main Contractor to manage construction noise and vibration. Mitigation included for receptors R12 and R13 include the use of temporary construction noise screening, best practice noise mitigation techniques for controlling construction noise at source, and real-time construction noise monitoring. It also includes the requirement for the Contractor to provide further mitigation should real-time monitoring demonstrate that SOAEL values are exceeded. Where this is enforced, the likelihood of significant residual effects due to construction noise occurring will be minimised.</p>

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<b>12. Noise and Vibration</b>			
1.12.10		<p>Tables 11-8 and 11-9 of ES Appendix 11.2 [APP-105] (and similarly Tables 11-8 and 11-9 of ES Chapter 11: Noise and Vibration [APP-049]) set out magnitude of noise change in the short-term and long-term during operation. Please explain why a moderate or major magnitude of noise change in the short-term has a lower decibel threshold than a moderate or major magnitude of noise change for the long-term?</p>	<p>These terms are defined within the DMRB LA111: Noise and Vibration and within ES Appendix 11.1: Glossary of terms (<b>APP-104</b>). "Short-term" is the noise change in the year of opening for the Proposed Scheme (Do Minimum Opening Year versus Do-Something Opening Year). "Long-term" is the noise change based on the +15 year assessment (for example Do-Minimum Opening Year against Do-Something Future Year).</p> <p>The magnitude of impact due of changes in road traffic noise is determined in accordance with the DMRB LA111 and Table 11-8 and 11-9 of ES Appendix 11.2: Legislation and policy framework (<b>APP-105</b>). Impact magnitude categories originate from research into the perceptibility of changes in road traffic noise (on opening, and over the long-term). Due to the different way that short-term and long-term noise changes are perceived, it is often the case that the change in road traffic noise on scheme opening is of a greater impact magnitude than those determined over the long-term. This is the case for some receptors in the vicinity of the Proposed Scheme. Differences in road traffic parameters (and therefore predicted road traffic noise levels) can also occur between scenarios which can influence the assessment.</p> <p>The significance of the potential effects due to changes in road traffic noise has been evaluated in accordance with DMRB LA111: Noise and Vibration, as described in ES Appendix 11.2: Legislation and policy framework (<b>APP- 105</b>). This involves consideration of the impact magnitude over both the short-term and long-term. Firstly, road traffic noise changes in the short-term are used within an initial assessment to define where significant effects could occur. Then, the final significance is determined considering aspects such as context, absolute road traffic noise level, differences in impact magnitude over the short-term and long-term, etc, and a justification is then presented. This determination of final significance is application of the DMRB LA 111 approach (paras 3.57 to 3.63) and the justification for each</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>12. Noise and Vibration</b>			
			receptor group is presented within Table 11-14 of ES Chapter 11 ( <b>APP-049</b> ).
1.12.11		<p>ES Chapter 11: Noise and Vibration [APP-049], paragraph 11.8.28, notes that if construction related traffic uses the B1140 (Yarmouth Road) there is the potential for adverse significant noise effects and as such construction related traffic shall not use any roads other than the A47 to access site. This is also set out in Appendix H of the revised outline Traffic Management Plan [AS-011]. Please clarify:</p> <p>a) whether the reference to 'Yarmouth Road' is correct?; and</p> <p>b) if only the A47 is to be used for construction traffic, how an access road to the B1140 to and from a main compound, as annotated on the plan which forms part of Appendix H of the outline Traffic Management Plan, aligns with this?</p>	<p>a) This is an error and should read High Road. ES chapter 11 Noise and Vibration (<b>APP-049</b>) has been updated accordingly.</p> <p>b) The assessment of construction traffic noise within ES Chapter 11 Noise and Vibration (<b>APP-049</b>), considers the change in road traffic noise expected for all roads within the affected road network during the construction period. The change in road traffic noise is determined on each road individually in accordance with DMRB LA111.</p> <p>There are two groupings of receptors adjacent to the section of the B1140 that links the A47 to the compound, which would be used by construction traffic. At these receptors, the A47 is identified as the dominant source of road traffic noise. The change in cumulative road traffic noise level at these receptors is not significant during the construction period.</p>
1.12.12		Table 11-7 of ES Appendix 11.2 [APP-105] specifies the time period for 'day' as 0600-2400 hours and for 'night' as 2300-0700 hours. Are these time periods correct, and if not, does this have any implications for the operational noise assessment?	The time period for the night is defined within the terms and definitions of DMRB LA111 (page 7). The time period for the road traffic noise index, dB LA <sub>10,18hour</sub> , is also defined within LA111. The ES is consistent with these definitions.
1.12.13		ES Chapter 11: Noise and Vibration [APP-049], paragraph 11.7.3, states that the comparison of measures baseline results is 'broadly in accordance with' the Calculation of Road Traffic Noise shortened method. Please clarify where this is not in accordance with this and any implications as a result.	<p>The shortened method requires measurement of the dB LA<sub>10</sub> over three consecutive one-hour periods. The baseline results in the ES (at short-term locations) are determined from the dB LA<sub>10</sub> measures over three 15 minute periods in three consecutive hours.</p> <p>It is widely accepted in the acoustics industry, including previous DMRB guidance*, that the 15-minute dB LA<sub>10</sub> is approximately equal to the 1 hour dB LA<sub>10</sub> where traffic is free flowing and the dominant noise source.</p> <p>* The latest version of DMRB does not provide this supplementary</p>

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<b>12. Noise and Vibration</b>			
			information. However, there is no technical reason why the above is not still relevant.
1.12.14		ES Chapter 11: Noise and Vibration [APP-049], paragraphs 11.8.15 and 11.8.21 states that the use of construction plant that causes high levels of vibration at the closest point to the specified receptors would not be predicted to occur for periods of several days or would be unlikely to occur. Please provide further justification for these assertions.	<p>The piling activity required for the construction of the retaining wall at this location is anticipated to be completed within the duration thresholds set out in DMRB LA111 to avoid significant effects.</p> <p>Significant effects would occur should works impact receptors for 10 or more days or nights in any 15 consecutive days or nights; or for a total number of days exceeding 40 in any 6 consecutive months. At this time there is no certainty on whether these durations threshold would be exceeded, therefore the assessment applies the precautionary principle, assuming this could happen.</p>
1.12.15		ES Chapter 11: Noise and Vibration [APP-049], paragraph 11.8.46, states that 2 Hall Cottage would experience noise impacts above the Significant Observed Adverse Effect Level (SOAEL) upon opening. Table 11-14 of ES Chapter 11 states that this receptor is predicted to have a minor increase in absolute noise levels in the short term, with embedded mitigation in place. It goes on to state that road traffic noise levels are predicted to reduce, stay the same or increase above the SOAEL. It then states that "At the opposite façade to the road, a minor adverse increase is predicted, however the road traffic noise level remains below the SOAEL." This information seems to be contradictory so please clarify the position in respect of noise impacts on 2 Hall Cottages and the effectiveness of proposed mitigation (which the ExA understands to be a permanent noise barrier to be erected as soon as possible during construction).	<p>Table 11-14 provides commentary on the expected noise changes at façades that are currently above the SOAEL (the significant observable adverse effect level of 68 dB LA10,18hr façade) and the facades opposite to the road (i.e. facing away from the existing A47). The former facades face towards the existing A47.</p> <p>At the former (near side) façades, with embedded mitigation, the noise changes are either a negligible increase, no change or a reduction. At the latter (rear side) façades, a minor increase is expected but the predicted level remains below 68 dB LA10,18hr façade. This, when evaluated in accordance with DMRB LA111, is not significant.</p> <p>Refer also to response 1.12.3.</p>
1.12.16		Appendix 11.5 [APP-108] provides a number of tables in respect of the construction noise assessment. Are there similar tables for the operational noise assessment, and if not, please explain the reason for this?	<p>The assessment of construction noise has been carried out at representative receptors, as shown in Section 11.4 of ES Appendix 11.5: Construction Noise Assessment (APP-108).</p> <p>The assessment of operational noise has been carried out at all receptors within the operational study area (1287 dwellings and 24 non-residential receptors).</p>



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<b>12. Noise and Vibration</b>			
			It is not practical or proportionate for the assessment to provide predicted levels of road traffic noise in tabular form for this number of receptors. The impact magnitudes at each dwelling are summarised in Tables 11-7 to 11-9 of ES Chapter 11: Noise and Vibration (APP-049) with further discussion within the text.
1.12.17		Please clarify the units for the distances shown in Table 11-5 of ES Chapter 11: Noise and Vibration [APP-049].	These distances are in metres. Chapter 11 has been updated accordingly.

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<b>13 Population and Human Health</b>			
1.13.1	NCC / BDC	Can NCC and BDC comment on the assessment of Population and Human Health and its conclusions?	Response not required from the Applicant
1.13.2		The Human Health assessment describes positive, neutral, negative or uncertain effects but does not define whether the effects presented in Table 12-9 are significant. Whilst sensitivity and potential health outcomes are defined, this does not align with the overarching methodology referenced in ES Chapter 4: Environmental Assessment Methodology [APP-042] and no alternative method to determine significance is presented. Please explain the method applied to determine significant effects for human health and clarify whether the impacts presented in Table 12-9 are significant?	<p>The human health assessment follows DMRB LA 112 which includes 'human health outcome categories' (Table 3.32, LA112), as explained in 12.3.28 and Table 12-3 of ES Chapter 12: Population and Human Health (APP-050). These have been used to determine the likely health outcomes as a result of the Scheme.</p> <p>LA 112 does not provide criteria or a requirement for determining significance in relation to human health.</p>
1.13.3		ES Chapter 12: Population and Human Health [APP-050], paragraph 12.8.1, states that where a closure of a walking, cycling or horse rider route is required, safe and appropriate alternative routes would be provided to ensure access is maintained during construction. How and where would such routes be provided during this time and where is this secured?	<p>The detail of the closures / diversions and routes is not yet available and will form part of the development of a detailed construction strategy.</p> <p>Commitment PHH1 in the REAC (within the EMP) states that:</p> <p><i>The Proposed Scheme shall be constructed to reduce the need to close and divert footways, PRoW and cycle facilities. Where a closure of a WCH route is required, safe and appropriate alternative routes would be provided to ensure access is maintained during construction and closure would be agreed with the local authority The principal contractors would agree all temporary diversion routes with the local highway authority. Appropriate signage for all closures or diversions would be used to provide sufficient notice of such closures or diversions.</i></p> <p>The EMP (TR010040/APP/7.7 Rev 2) is secured by Requirement 4 to the draft DCO (TR010040/APP/3.1 Rev 1)</p>

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			The DCO provides further mechanisms for determining the closures, namely the need to obtain the consent of the local highway authority before diverting/making restrictions over non-Highways England roads (Article 16) and the need to provide a permanent or temporary replacement route before stopping up (Article 17).
1.13.4		ES Chapter 12: Population and Human Health [APP-050], paragraph 12.9.14, sets out that Table 12-9 relates to residual effects on private property and housing during operation. This table assesses the temporary land take from some residential gardens on Yarmouth Road to construct a retaining wall as having a residual moderate adverse effect (and thus significant). Please explain how this would be the case if land take would be temporary?	DMRB LA112 does not define significance based on permanent or temporary land take. Due to the partial loss of/damage to key characteristics, features or elements i.e. the dense vegetation at the bottom of the garden, this was considered a moderate impact.
1.13.5		ES Chapter 12: Population and Human Health [APP-050] identifies that the Proposed Development would adversely affect the viability of some agricultural land holdings during construction and operation. Please clarify: a) How impacts on viability have been assessed?; and b) How any adverse impacts on the viability of agricultural land holdings would be compensated for?	a) Questionnaires were provided to agricultural holdings as part of the assessment. Question 16 relates to the 'classification of effect' on the holding. This includes the impact on viability as a result of the Proposed Scheme. Not all questionnaires were responded to. In the absence of a returned questionnaire or detailed farm business information, we defer to an agricultural expert to make professional judgement on viability. b) The entitlement to compensation is provided for by the existing compensation code and Article(s) 29(5) and 33(4); and Schedule 6 to the DCO ( <b>TR010040/APP/3.1 Rev 1</b> ).
1.13.6		ES Chapter 12: Population and Human Health [APP-050], paragraph 12.9.15, notes the loss of some allotments at Blofield as a result of the replacement car park. Please clarify: a) The extent of the loss; b) Whether these would be replaced, and if not, provide justification for this; and c) Although not field and fuel allotments, whether the allotments could be classified as 'open space' as per sections 131 and 132 of PA2008, and if so, any implication for this?	a) As stated in 12.9.15 (Chapter 12), there would be permanent land-take (up to 0.1ha) from the allotments at Blofield to accommodate the Proposed Scheme and replacement parking spaces. b) Replacement of the allotments was considered during the design and consultation process. Due to the lack of available land, and feedback from the public, replacement of the allotments was not deemed possible. c) As set out in the Statement of Reasons ( <b>APP-019</b> , Section 8) no open space or other qualifying special category land is

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			within the Order lands. The Blofield Allotments are not fuel or field garden allotments.
1.13.7		ES Chapter 11: Noise and Vibration [APP-049] identifies significant adverse long-term effects on some residential receptors along the B1140 (High Road) and Yarmouth Road which would not be mitigated. In light of this, please explain further the conclusions in Table 12-9 of ES Chapter 12: Population and Human Health [APP-050] that long-term operational effects of noise on human health, due to mitigation, would be neutral?	ES Chapter 12 Population and Human Health ( <b>APP-050</b> ) updated (Table 12-19 and Summary) to reflect negative health outcome in terms of noise.
1.13.8		<p>The ExA notes that numerous RRs (including from NCC [RR-002] and BDC [RR-001]) raise concerns about the lack of a footbridge / underpass over / under the proposed A47 route to provide a direct link between footpath FP3 (and Lingwood / Lingwood Community Woodland / Burlingham Woodlands Walk) to the south with footpaths (and North Burlingham / Burlingham Woodland Walks) to the north and resulting effects on community severance and recreational opportunities. Such concerns also appear to have been raised during the consultation process in respect of the Proposed Development. Please clarify the following:</p> <p>a) The additional distance which would need to be travelled to get from footpath FP3 (to the south of the proposed A47) to the nearest footpath, North Burlingham and Burlingham Woodlands Walk (to the north of the proposed A47) as a result of the Proposed Development?;</p> <p>b) To what extent the Proposed Development complies with the National Networks NPS (particularly paragraphs 3.3, 3.17, 5.205 and 5.216), and any other relevant policies, which relate to mitigating environmental and social impacts, community severance, opportunities for walking and mitigating impacts for non-motorised users?;</p> <p>c) The reasoning and considerations given to not providing a footbridge or underpass at this location during the design development of the Proposed Development to mitigate permanent significant adverse effects?; and</p> <p>d) Can the Applicant please respond to requests in RRs for a</p>	<p>a) Additional distances:            Burlingham FP3 to centre of North Burlingham = 2km            Burlingham FP3 to Start of Burlingham Woodlands Walk/Burlingham FP1 = 2.2km</p> <p>b) The Applicant has sought to both mitigate the environmental and social impacts of the Scheme and provide improved facilities for users by incorporating a reasonable and proportionate package of improvements for walkers and cyclists. With regard to the severing of Burlingham FP3, the Applicant has examined the functionality and character of this footpath and also determined its current usage, to inform the decision regarding the appropriateness of the proposed mitigation, namely, the provision of a new public footpath and crossing facilities at the North Burlingham Junction. The Applicant has also fully investigated the availability of existing walking and cycling routes in the area which provide for connectivity between Blofield, North Burlingham and Acle and has incorporated facilities to improve these connections, where required. As such, the Scheme is compliant with paragraph 3.3 of the National Networks NPS.</p> <p>The Applicant has used reasonable endeavours to address the needs of cyclists and pedestrians in the design of the proposed Scheme. The Scheme provides a new shared footway / cycleway between the Blofield Overbridge and North Burlingham to improve east to west connections and a new public footpath running east to</p>

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		<p>footbridge or underpass and justify not providing such to mitigate the adverse effect?</p>	<p>west and to the south of the A47 which will provide an attractive addition to the PRoW network and mitigates the severing of Burlingham FP3. Crossing facilities are provided at both the Blofield Overbridge and the North Burlingham Junction to remove the A47 as a barrier for north to south walking and cycling movements thereby correcting an historic problem. As such, the Scheme is compliant with paragraph 3.17 of the NPS.</p> <p>In accordance with paragraph 5.205 of the NPS, the Applicant has considered reasonable opportunities for supporting non-motorised users and has proposed a package of improvements and mitigation measure to address the existing severance issues associated with the A47 thereby removing it as a barrier for users.</p> <p>The Applicant has also had regard to the requirements of paragraph 5.216 of the NPS, especially in respect of the reasonableness of the proposed migration to address the severing of Burlingham FP3. Current usage of Burlingham FP3 is very low and it is not a practical route for all weather utility trips between North Burlingham and Lingwood given the quality of the footpath surfacing and the walking distances involved. The low current usage is not sufficient to justify in highway and economic terms the provision of an additional crossing solely for pedestrians. As such, the Scheme is compliant with the policy in this regard.</p> <p>In summary, the proposed Scheme complies with the NPS in that it provides a reasonable package of new and improved infrastructure for pedestrians and cyclists which improves accessibility and is proportionate to user activity in the area. In combination with the existing facilities, the proposed pedestrian and cycling infrastructure will provide improved and safe connections between Blofield and North Burlingham and between Lingwood and North Burlingham. In addition, the two grade separated crossing points proposed at the Blofield Overbridge and at the North Burlingham Junction address remove the A47 as a barrier to non-motorised users thereby mitigating the</p>

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			<p>environmental and social impacts of the Proposed Scheme and correcting an historic problem.</p> <p>When considering reasonable and proportionate mitigation in response to the severing of Burlingham FP3, namely a new length of public footpath connecting to the crossing facilities proposed at the North Burlingham Junction, the legal status of the footpath and the existing level of usage were considered along with the footpath's character, utility and convenience. Burlingham FP3 is a public footpath so cannot be used legally by cyclists or horse-riders. It is not well used, reference to ES Chapter 12: Population and Human Health [APP-050] Table 12.5 and it is not a convenient or attractive route for utility walking trips between North Burlingham and Lingwood due the walking distances involved and the quality of the route being an un-surfaced, part field edge/part field footpath. Burlingham FP3 is used predominantly for recreational walking trips where surface quality and walking distance are less important. As such, the additional walking distances required to access the crossing facilities at the North Burlingham Junction are unlikely to be a deterrent to its future use by recreational users.</p> <p>c)</p> <p>Firstly, Burlingham FP3 is a public footpath so cannot be used legally by cyclists, i.e. all existing cycle trips are required to make use of the local highways connecting to the A47 and cross the A47 at the existing at-grade junctions. For cyclists to use Burlingham FP3, its status would need to be legally changed to that of either a bridleway or cycle track, its width would need to be increased and its surfacing improved in agreement with the relevant landowner(s). Upgrading the status and form of this PRoW would extend the impacts on landowners and could not be justified in terms of being sufficiently compelling when considering whether or not to compulsory acquisition powers should be sought.</p> <p>As indicated, all existing cycle trips between Lingwood and North Burlingham and between other destinations north and south of the</p>

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			<p>A47 are required to make use of the local highways connecting to the A47 and cross the A47 at the existing at-grade junctions. . The Proposed Scheme would not lead to a marked increase in journey distance for cycling trips across the A47 and the cycle track to be incorporated into the proposed North Burlingham Junction would facilitate the safe crossing of the new A47. The proposed Scheme would therefore improve the cycling experience and remove the severance effect of the A47 for cyclists. With the provision of the two new bridges as part of the Scheme it was considered appropriate to utilise these crossings for pedestrians and cyclists in addition, with the two crossing being sufficiently proximate to the currently location of Burlingham FP3 so as not to justify in highway and economic terms the provision of an additional crossing solely for pedestrians.</p> <p>The WCH surveys recorded very low usage of Burlingham FP3 and very few crossing movements of the A47 in the vicinity of North Burlingham, reference to ES Chapter 12: Population and Human Health [APP-050] Table 12.5. It may be that Burlingham FP3 is not an attractive route for walking trips between North Burlingham and Lingwood, for utility trips, given that it is an un-surfaced, part field edge/part field footpath and given the distance between the two settlements.</p> <p>The walking distance between the centre of North Burlingham and both the primary school and village hall at Lingwood, via Burlingham FP3 and the footways provided as part of the local highways, is approximately 2.5km. The walking distance to the railway station is 2.3km via the same route. The Institution of Highways and Transportation (IHT) document, '<i>Providing for Journeys on Foot (2000)</i>', indicates that the preferred maximum walking distance to common facilities is 1.2km and up to 2km for commuting, or walking to school. The walking distances to the facilities at Lingwood exceed the preferred maximum walking distances. Moreover, to put the required walking times into perspective, the IHT document identifies 1.4m/s as an average</p>

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			<p>walking speed. The application of this walking speed indicates a walking time of around 30 minutes to reach the primary school and villages hall and 28 minutes to reach the railway station, irrespective of any delay associated with crossing the A47. These sizeable walking distances and walking times suggest that despite the apparent severance effect of the A47, use of Burlingham FP3 is not an attractive route for everyday utility trips between North Burlingham and Lingwood. This is likely to remain the case if an overbridge were to be provided.</p> <p>It can be concluded from the above that Burlingham FP3 is therefore more of a leisure route for recreational walking trips where surface quality and walking distance are less important. Many of the RRs highlight the importance of this route for leisure purposes.</p> <p>Looking now at the issue of access to the Burlingham Woodland Walks network at North Burlingham, namely where Burlingham FP1 connects with Main Road, having commenced such a recreational walking trip at Lingwood railway station. The walking distance via Burlingham FP3 and the footways provided as part of the local highways is around 2.1km, which suggests a walking time of around 25 minutes plus any delay associated with crossing the A47. With the Scheme implemented as proposed, three alternative routes for walkers are available between Lingwood Station and Burlingham FP1. These are shown in Applicant's Response to Relevant Representations, Appendix A, Figure C (<b>TR010040/EXAM/9.2</b>) and described below:</p> <ul style="list-style-type: none"> <li>Option 1 - via use of the local highways (School Road/Church Road), Burlingham FP3, the proposed new PRoW footpath to the south of the A47, the shared footway/cycleway at the North Burlingham junction to cross the A47 and then the footways along Main Road to access Burlingham FP1. This results in</li> </ul>



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			<p>an increased walking distance of around 2.2km and an increased walking time of around 26 minutes.</p> <ul style="list-style-type: none"> <li>• Option 2 - via use of the local highways (School Road/Church Road), Burlingham FP3, the permissive bridleway to Lingwood Lane, Lingwood Lane, the proposed new PRow footpath to the south of the A47 and then via the same route to Option 1 to access Burlingham FP1. This results in an increased walking distance of around 2.1km and an increased walking time of around 25 minutes.</li> <li>• Option 3 - via use of the local highways (School Road/Lodge Road), Lingwood Lane, the proposed new PRow footpath to the south of the A47 and then via the same route as Options 1 and 2 to access Burlingham FP1. This results in an increased walking distance of around 1.5km and an increased walking time of around 18 minutes.</li> </ul> <p>The above indicates that users undertaking a recreational walking trip would experience around an 18 to 26 minute increase in walking time when accessing Burlingham FP1 from Lingwood railway station, although, minimal delays would be experienced when crossing the new A47 via the proposed North Burlingham Junction. Given that this grade separated junction would remove the severance effect of the A47, it is contended that the increased walking distances are unlikely to be a deterrent to those users wishing to undertake a purely recreational trip.</p> <p>In summary, given the sizeable walking distances and walking times involved and the fact that part of the route is via an un-surfaced, part field edge/part field footpath, it is concluded that Burlingham FP3 is not an attractive route for everyday utility trips between North Burlingham and Lingwood. This would continue to be the case if an overbridge of the A47 at North Burlingham were to be provided. Therefore, it is unlikely that provision of an overbridge would lead to a significant increase in utility walking</p>

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			<p>trips between Lingwood and North Burlingham, as is claimed by the RRs.</p> <p>It is acknowledged that, with the Scheme implemented as proposed, users undertaking recreational walking trips would experience increases in walking time and walking distance when accessing the Burlingham Woodlands Walks network from Lingwood railway station. However, given that the proposed North Burlingham junction would remove the severance effect of the A47, it is contended that the increased walking distances are unlikely to be a deterrent to recreational users. If anything, recreational walking trips could increase given that the A47 would no longer be a barrier.</p> <p>An additional overbridge at North Burlingham for pedestrians and cyclist is therefore not included in the Scheme as it could not be justified in terms of compelling case of land acquisition and the costs of constructing and maintaining the bridge for very limited use, when two bridges providing the facility to cross the A47 are being provided.</p>
1.13.9		<p>ES Chapter 12: Population and Human Health [APP-050], paragraph 12.6.9, states that Blofield is the main source of community assets in the study area. The ExA notes that a number of RRs suggests that Acle and Lingwood provide a wider range of services. In light of this, please clarify how Blofield was evaluated as being main source of community assets in the study area.</p>	<p>LA112 of the Design Manual for Roads and Bridges recommends that the study area for the assessment of the effects on land use and accessibility shall comprise the construction footprint/project boundary plus a 500 metres area surrounding the project boundary. It goes on to state that where likely effects are identified outside of the 500 metres area, the study area should be extended accordingly.</p> <p>The section of the A47 to the east of South Walsham Road is already a dual carriageway road and its layout would remain as existing post implementation of the proposed Scheme. As such, the proposed Scheme, would not result in any significant effects for walkers, cyclists and equestrians using facilities located to the east of South Walsham Road. In view of this, the study area for the assessment is that shown in Figure 12.1 Population and Human Health (<b>APP-069</b>), which includes the majority of Blofield, North Burlingham and the area to the north of Lingwood. The</p>

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			<p>study area does not include the town of Acle or the village of Lingwood.</p> <p>Figure 12.1 (<b>APP-069</b>) identifies the local facilities and amenities in the study area. Most of those facilities present in the study area are located within Blofield.</p>
1.13.10		<p>The ExA notes that a number of RR raise concerns at the lack of a proposed connecting footway / cycleway from North Burlingham to the footway near The Windle junction which connects to Acle. Would there be scope to provide such a footway / cycleway connection here, and if not, please explain the reasons for this?</p>	<p>The existing walking and cycling routes between North Burlingham and Acle, in relation to the proposed Scheme, are shown in Figure D.</p> <p>As can be seen, an attractive walking route for trips between North Burlingham and Acle is already provided by way of the Burlingham Woodland Walks network, utilising sections of Burlingham FP1 and FP2, South Walsham FP12, the permissive footpath between South Walsham Road and The Windle and the Byway between The Windle and Mill Lane in Acle. Similarly, with the Scheme in place, cyclists, on leaving North Burlingham, can travel north along South Walsham Road to Green Lane, northeast along Green Lane to Acle Road and then follow Acle Road/South Walsham Road into Acle. Alternatively, cyclists can leave Acle Road at The Windle and travel south before following the Byway which provides access to Mill Lane in the centre of Acle. Both routes are attractive and conducive to cycling. For cyclists not using road bikes, use can also be made of bridleway South Walsham BR11, which would result in a shorter journey than using Green Lane. Given the existing routes walking and cycling routes between North Burlingham and Acle, there is no justification for the provision of a connecting footway / cycleway from North Burlingham to the footway near The Windle junction.</p> <p>There is scope within the DCO Boundary to provide a new footway / cycleway connection between the B1140 South Walsham Road and the existing footway which commences near The Windle. The works required to provide such a connection would comprise the following:</p>

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			<ul style="list-style-type: none"> <li>i) provision of new lengths of footway / cycleway on both frontage of South Walsham Road and an uncontrolled crossing to link the two;</li> <li>ii) conversion of a length of the former A47 carriageway and the former layby (both proposed to be stopped up) to form a footway / cycleway; and</li> <li>iii) provision of a new length of footway / cycleway in the northern verge of the new A47 alignment.</li> </ul> <p>There are no significant engineering challenges which would prevent the provision of a footway / cycleway connection, other than a pinch-point in the vicinity of the residential property located immediately to the west of The Windle junction. It would only be possible to implement a substandard facility over this length, both in terms of its width and its separation from the A47 carriageway, due to the limited width of the available verge and the need to introduce a section of VRS.</p> <p>In addition to the above, the existing footway between The Windle and Norwich Road in Acle is only around 1.5m width, so too narrow to be used by both cyclists and pedestrians. Furthermore, the footway cannot be used legally by cyclists. To create a suitable shared footway / cycleway as far as Norwich Road in Acle, the status of the footway would need to be upgraded to that of a cycle track and the existing footway would need to be widened and it would also need to be realigned to provide an appropriate separation between the A47/exit slip road carriageway. There is insufficient width within the boundary of the A47 to accommodate such an improvement.</p> <p>As an alternative to upgrading the existing footway along the A47 and the exit slip road, cyclists could be direct northward along The Windle to connect with the Byway that links to Mill Lane in the centre of Acle.</p>

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1.13.11		<p>With regard to the proposed east to west footpath running to the south of the proposed A47 route (ES Chapter 12: Population and Human Health [APP-050], paragraph 12.8.11), please explain:</p> <p>a) The reason for this being a footpath only, rather than a mixed-use path, including for example, provision for cycling and horse riding; and</p> <p>b) To what extent the route would provide an attractive and safe environment for users, noting that some RRs (including from NCC [RR-002] and the Ramblers Norfolk Area [RR-015]) raise a concern over its proximity to the road.</p>	<p>a) The Proposed Scheme would sever Burlingham FP3, a Public Right of Way (PRoW) footpath. The proposed new length of footpath, which would be of equivalent legal status, would link with Burlingham FP3 and provide walkers with onward connections to the proposed shared footway / cycleway at Blofield Overbridge and the crossing facilities at the North Burlingham Junction. The provision of the footpath would prevent the formation of a dead end for walkers where Burlingham FP3 is diverted.</p> <p>The reasons for this being a footpath are threefold:</p> <ul style="list-style-type: none"> <li>(i) Burlingham FP3 is a footpath so cannot be used legally by cyclists and equestrians.</li> <li>(ii) Very few cyclist movements were recorded during the WCHR surveys, with the only notable movements being 9 cyclists two-way over a 12-hour period travelling north to south (and vice versa) across the A47 between South Walsham Road and the B1140, reference to ES Chapter 12: Population and Human Health [APP-050] Table 12.5. New north to south, grade separated, connections across the A47 for pedestrians and cyclists would be provided at both the proposed Blofield Overbridge and the North Burlingham Junction and an appropriate east to west connection for cyclists travelling between Blofield and North Burlingham would be provided by the shared footway / cycleway proposed in the northern verge of the former A47.</li> <li>(iii) There are no public bridleways which connect to the length of the A47 to be improved. The closest facility to the A47 for equestrians is a permissive bridleway which runs between Lingwood Road and Lingwood Lane, to the south of the A47. No equestrian activity was recorded during the WCHR surveys, which reflects the advice provided by Norfolk County Council's PRoW and Active Travel officers that there</li> </ul>

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			<p>is no significant equestrian activity in the vicinity of the Proposed Scheme.</p> <p>b) The route of the proposed new footpath is shown in the context of the Proposed Scheme and the surrounding landscape on the Masterplan (APP-118). With the exception of a 230 metre section of the route located to the east of the Blofield Overbridge, which would be on an embankment, the footpath would be provided either in cutting or at grade with the new A47. Users of the footpath would have open views of the countryside to the south of the A47 over the majority of its length, consistent with existing views associated with the area.</p> <p>Between the access road leading to the Blofield Overbridge and a point around 80 metres east of Burlingham FP3, the footpath would run parallel to and to the north of an agricultural track. Beyond which, the footpath would run parallel to and to the south of a maintenance access track as far as the proposed soakaway at North Burlingham. Infrequent use of these tracks by agricultural and maintenance vehicles is unlikely to impact on the amenity of users of the footpath.</p> <p>The footpath would follow a southeast and then northbound route around the soakaway before following the route of the existing permissive bridleway, which connects to Lingwood Lane. Beyond Lingwood Lane, the footpath would follow an eastbound route parallel to the new A47 and the B1140 on-slip road before connecting to the shared footway / cycleway on B1140. At its closest point, namely at the eastern end of the agricultural track, the centreline of the footpath would be no closer than around 8 metres to the southern edge of the A47 westbound carriageway.</p> <p>A new fence and hedgerow would be provided between the footpath and the A47 over the majority of its length with the main exception being where an acoustic barrier, approximately 380 metres in length, is to be provided (instead of a fence) in the</p>

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			<p>vicinity of Poplar Farm and the adjacent residential properties.</p> <p>A line of individual trees would be established between the acoustic barrier and footpath to act in combination with the proposed hedgerow to limit visibility of the barrier. This would complement areas of proposed woodland planting to the south of the footpath in creating an enclosed section of the route, adding variation to the overall visual experience of users travelling along the length of the footpath.</p> <p>Groups of trees would be planted at other locations over the length of the route to break up views of the road and there would be planting in the vicinity of the Blofield Overbridge to both screen the bridge and improve habitat.</p> <p>Species rich grassland would be established along the majority of the length of the footpath which would add seasonal variation, attract wildlife and enhance the sense of the footpath passing through its own setting, separate from the adjacent agricultural land or highway.</p> <p>The layout of the footpath and the complimentary landscape improvements shown on the Masterplan (APP-118) will ensure that the footpath is an attractive and safe environment for users. The Masterplan is a certified document under 48 of the DCO and requirement 5 (2) will ensure that the landscaping scheme reflects the mitigation measures set out in the Record of Environmental Actions and Commitments, which is based on the Masterplan</p>
1.13.12		<p>ES Chapter 12: Population and Human Health [APP-050], paragraph 12.3.11, refers to surveys undertaken in line with the "Walking, Cycling and Horse-riding Assessment and Review (WCHAR) process". Please explain what the process is as it is unclear to the ExA from the information provided.</p>	<p>The walking, cycling and horse-riding assessment and review (WCHAR) process for highway schemes on motorways and all-purpose trunk roads is set out in GG142 of the Design Manual for Roads and Bridges. The level of detail required for the assessment is dependent upon the size of the scheme, large or small, which in turn defines the study area.</p> <p>The A47 Blofield to North Burlingham scheme fits within the definition of a large scheme as given in Table 2.2.1N of GG 142,</p>

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			<p>vis "New motorway or all-purpose trunk road construction or major modification of an existing trunk road or motorway junction".</p> <p>The aims of the assessment are:</p> <ul style="list-style-type: none"> <li>To gain an understanding of all relevant existing facilities for pedestrians, cyclists and equestrian (users) in the local area.</li> <li>To provide background user information that can be referred to throughout the design process.</li> <li>To identify opportunities for improvement for users.</li> </ul> <p>The aims of the review are:</p> <ul style="list-style-type: none"> <li>To review the proposals for pedestrians, cyclists and equestrians throughout the highway scheme design process.</li> <li>To review the potential impact of the proposed highway scheme on users in the area and on existing facilities.</li> <li>To identify new opportunities for improvement (or constraints) for users that may arise from the development of the highway scheme that are not evident during the assessment phase.</li> </ul> <p>The Review Report is required to record the design decisions relating to the provision of walking, cycling and horse-riding facilities. Actions to implement the opportunities should be recorded and where opportunities are not proposed to be implemented, the reasoning for this also needs to be recorded in the Review Report.</p> <p>As the A47 Blofield to North Burlingham scheme fits within the definition of a large scheme, one of the requirements of the WCHAR Assessment is to collect walking, cycling and horse-riding user survey data. GG 142 states that the "Lead Assessor should determine the appropriate quantity of information to be captured, such that only information which can be used to help inform the highway scheme design is collated."</p> <p>As specified in ES Chapter 12: Population and Human Health [APP-050], paragraph 12.3.9 and shown on Figure 12.1 (APP-069), WCH surveys were undertaken in June 2018 at 5 locations in the vicinity of North Burlingham. The surveys were carried out between 7am and 7pm over nine consecutive days, outside of school holidays between Saturday 26 May and Sunday 3 June using CCTV video cameras. The weather during the surveys was</p>



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			<p>dry and bright. As such, we would expect that the usage information collected is representative and sufficient to inform the Assessment.</p> <p>Government advice during the various Covid-19 lockdown periods encouraged people to stay local and make more use of walking and cycling. The Applicant acknowledges that this advice may have had a legacy resulting in an increase in use of the existing facilities in the vicinity of North Burlingham. The WCH surveys were therefore repeated on Sunday 30 May 2021, during the Spring Bank Holiday weekend, and on Wednesday 9 June 2021, a typical weekday, when pupils have returned to school. In addition, WCH surveys were conducted at the junctions of the A47 with both Lingwood Lane and Dell Corner Lane to capture any usage activity associated with these local roads. The results of these additional surveys are summarised in the Applicant's Response to Relevant Representations, Appendix A, Annex A (TR010040/EXAM/9.2). In the main, the results of the 2021 WCH surveys reflect those of the June 2018 WCH surveys in that current usage of the facilities is very low, especially Burlingham FP3, with the exception of Burlingham FP1.</p>
1.13.13		<p>ES Chapter 12: Population and Human Health [APP-050], paragraph 12.9.39, states that access for agricultural holding 10 would remain intact. Paragraph 12.9.50 states that following completion of construction there would be no physical impact upon this holding. This holding is shown on Sheet 10 of ES Figure 12.3 [APP-069]. However, RR [RR-068] suggests there would be changes to access given the closure of a layby, as does Inset H on Sheet 8 of the Rights of Way and Access Plans [APP-007]. Please clarify whether access to agricultural holding 10 would be affected, and if so, explain how this would influence the assessment of significant effects, having regard to the content of RR [RR-068]?</p>	<p>The ES chapter 12 has been updated to reflect the changes in the holding. This has changed the magnitude of the impact but not the residual significant effects.</p>
1.13.14		<p>To what extent would the Proposed Development provide local employment and training opportunities?</p>	<p>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.</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>13 Population and Human Health</b>			
1.13.15		Please explain why the communities of Brundall and Beighton are excluded from the study area when they are potentially linked via the source-pathway-receptor model (in line with DMRB LA 112 guidance, paragraph 3.28.1) given that they are linked to the Proposed Development via the road network and that the zone of influence from impacts such as noise and air pollution include these areas?	<p>Although not specifically mentioned the study area does reflect communities impacted and have been included in the technical assessments. For clarity, the following sentence has been added to 15.5.2:</p> <p>The study area extends beyond these communities where relevant, for example for the noise and air quality assessments.</p>
1.13.16		Please explain why the communities of Brundall and Beighton are excluded from the study area when they are potentially linked via the source-pathway-receptor model (in line with DMRB LA 112 guidance, paragraph 3.28.1) given that they are linked to the Proposed Development via the road network and that the zone of influence from impacts such as noise and air pollution include these areas?	<p>Although not specifically mentioned the study area does reflect communities impacted and have been included in the technical assessments. For clarity, the following sentence has been added to 15.5.2:</p> <p>The study area extends beyond these communities where relevant, for example for the noise and air quality assessments.</p>
1.13.17		Please provide further justification as to why a high sensitivity has been applied to private property and housing when scope remains that very high sensitivity could be applied based on the criteria listed in the methodology set out in ES Chapter 12: Population and Human Health [APP-050].	<p>As per DMRB LA112 (Table 3.11), high sensitivity applies where:</p> <p>“private property or land allocated for housing located in a local planning authority area where the number of households are expected to increase by 16-25% by 2041 (ONS data); and/or existing housing and land allocated for housing (eg strategic housing sites) covering &gt;1-5ha and / or &gt;30-150 houses”.</p> <p>As noted in 12.6.1, the number of households are expected to increase by 16-25% by 2041. A sensitivity classification of High therefore applies and is in line with LA112.</p>
1.13.18		Please provide further justification for assigning a medium sensitivity to receptors listed in Table 12-9 of ES Chapter 12: Population and Human Health [APP-050], when the baseline description applies a high sensitivity to private housing receptors in Blofield, Burlingham and Acle in section 12.6 and no other receptors are identified?	<p>Medium sensitivity has been applied in these instances where alternative local access is available to the impacted properties. Additional text has been added to the ES Chapter 12: Population and Human Health [APP-050] baseline section.</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>14. Transportation and Traffic</b>			
1.14.1	NCC / BDC	Are the parties satisfied with the Applicant's Transport Assessment [APP-122]? Please provide reasons for any disagreement with any aspect of it.	Response not required from the Applicant
1.14.2	NCC / BDC	Are the parties satisfied with the Applicant's revised outline Traffic Management Plan [AS-011] (which includes details of construction traffic routing)? Please provide reasons for any concerns with any aspect of it.	Response not required from the Applicant
1.14.3		The Transport Assessment [APP-122] does not appear to assess the implications of construction traffic on the highway network. ES Chapter 12: Population and Human Health [APP-050], paragraph 12.6.6, determines that currently, the A47 experiences congestion at peak hours and there is potential for up to 425 HGVs / 850 movements per day between (and including) months 6 to 17 (ES Chapter 2: The Proposed Scheme [APP-040], Table 2-4) and mitigation presented in the outline Traffic management Plan includes various traffic management measures. Therefore, please provide further justification for reaching the conclusion that congestion impacts will be minimal (ES Chapter 12, paragraph 12.9.1) and for omitting an assessment of construction traffic impacts as a result of the Proposed Development?	Chapter 2, Table 2-4 ( <b>APP-040</b> ) provides the estimated maximum lorry trips per day per phase. The maximum lorry tips per day will not occur for the full duration of any phase and phases may overlap. Table should be read as per phase and not as an overall programme.
1.14.4		N6 of the REAC [AS-009] states that construction related traffic can use the A47 as required provided that the maximum number of HGV movements described in ES Chapter 2 'Table 2-3' are not exceeded. Should this rather refer to 'Table 2-4'? If so, please amend as necessary.	N6 of the REAC has been amended. The EMP has been amended and submitted at Deadline 1.
1.14.5	APP/NCC	The RR from NCC [RR-002] raises some queries around the management and maintenance of new assets and responsibilities for verges and trees. Has there been any progress in respect of these matters?	The Applicant is currently discussing the future management and maintenance with Norfolk County Council and will continue to do so until an agreement can be reached and recorded in the Statement of Common Ground ( <b>TR010040/APP/8.3</b> ).
1.14.6		Where footway / footpath / cycleway links would be separated by roads (for example in the vicinity of the proposed bridges), what consideration has been given to the safe crossing of these roads?	In the vicinity of the Blofield Overbridge, uncontrolled crossings with dropped kerbs are proposed where the proposed footway crosses the access road and where the proposed shared footway / cycleway crosses the de-trunked A47 west which will connect to High Noon Lane. It is considered that this form of facility, which is

Question number	Doc ref & question to	Question	Applicant's Response
<b>14. Transportation and Traffic</b>			
			<p>both appropriate and proportionate, will provide for the safe crossing of these roads. In selecting this form of crossing, consideration has been given to the very low flows anticipated on both the access road and on the de-trunked A47 west, the rural nature of the network in these locations and the likely future use of the crossing, having regard to the existing levels of pedestrian and cyclist activity in the vicinity of the Proposed Scheme.</p> <p>Uncontrolled crossing with dropped kerbs are also proposed where the shared footway / cycleway crosses the A47 westbound on and off slip roads and the de-trunked A47 east at the North Burlingham Junction. It is considered that this form of facility, which is both appropriate and proportionate, will provide for the safe crossing of these roads. In selecting this form of crossing, consideration has been given to the 30mph speed limit on the roads comprising the North Burlingham Junction, the low hourly flows anticipated on the roads concerned, the rural nature of the network in these locations and the likely future use of the crossings, having regard to the existing levels of pedestrian and cyclist activity in the vicinity of the Proposed Scheme.</p>
1.14.7		In its RR, NCC [RR-002] questions the proposed classification of some roads (section 1.3). Please provide a response to this or address the matter through the Statement of Common Ground between the parties.	The Applicant has responded to the RR and confirms the classification of roads is as per NCCs request.
1.14.8		Paragraph 3.1.15 of the outline Traffic Management Plan [AS-011] appears to be incomplete. Please address this.	This has been amended and a in the revised outline Traffic Management Plan provided (TR010040/APP/7.8 Rev 2) submitted at Deadline 1.
1.14.9		Paragraph 3.1.14 of the outline Traffic Management Plan [AS-011] refers to the 'Cambridge Road junction'. Is this reference correct as this junction does not appear to be referred to elsewhere in the application documents that the ExA can see?	This has been amended and a in the revised outline Traffic Management Plan provided (TR010040/APP/7.8 Rev 2) submitted at Deadline 1.
1.14.10		Column 3 of Table 3-3 of the outline Traffic Management Plan [AS-011], regarding road closures, does not appear to specify the	This has been amended and a in the revised outline Traffic Management Plan provided (TR010040/APP/7.8 Rev 2) submitted at Deadline 1.

Question number	Doc ref & question to	Question	Applicant's Response
<b>14. Transportation and Traffic</b>			
		time of day or stage in the programme despite the column heading. What is the reason for this?	
1.14.11		In the Additional Submission from the Applicant on behalf of Norfolk Constabulary [AS-014], Norfolk Constabulary suggests that the Applicant gives consideration to two raised observation platforms for use by the Police and the Road Safety Camera Team. Please provide a response to this request.	The Applicant has responded to the RR
1.14.12		<p>The Transport Assessment [APP-122], paragraphs 7.8.4-7.8.6, 8.2.2 and 9.6.5, refer to the A47 / Brundall roundabout and indicate that it is already operating over capacity and would experience additional congestion as a result of the Proposed Development. It is understood that the Applicant intends to make improvements to this roundabout separately to address this. Please clarify:</p> <p>a) To what extent the roundabout would experience additional congestion;</p> <p>b) Whether any plans for improvements at this roundabout have progressed;</p> <p>c) The timescales for such improvement works; and</p> <p>d) How confident the ExA can be that improvement works would be undertaken within the proposed timescales.</p>	<p>a) A junction is considered nearing capacity when the estimated Volume over Capacity ratio (V/C) reaches 85%. That is because between 85% and 100%, the junction approach is nearing capacity and flows may be unstable which can often lead to queuing. A V/C ratio above 100% indicates that the junction approach has reached overcapacity, leading to delays and queues and queues.</p> <p>The Brundall Roundabout is already nearing capacity, and will remain nearing capacity in 2040, irrespective of whether the scheme is constructed. The scheme would marginally increase delays at this location in 2040, however this must be considered in the context that overall journey times will be improved by the scheme.</p> <p>The tables in Appendix G show the estimated V/C and delays at stopline for each approach of the Brundall roundabout for both the Do-minimum (DM) and Do-Something (DS) scenarios based on the NATS 2040 forecast.</p> <p>The approaches with V/C of over 85% threshold have been shown in Red. Typically a value below 85% indicates that a junction approach works reasonably well.</p> <p>b-d) As stated in the Transport Assessment section 9.6.5 (TR010040/APP/7.7 as submitted at Deadline 1) the Applicant envisages that any potential congestion relief schemes taken forward will need to be progressed independently.</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>14. Transportation and Traffic</b>			
1.14.13		Does the Applicant intend to produce a Travel Plan for construction workers, and if so, how would this be secured?	A travel plan is not proposed.
1.14.14		Some RRs raise concerns about the safety of the A47 / Windle junction as a result of the Proposed Development (including the lack of proposed slip roads and the crossing of the A47 by vehicles). Please address this matter.	<p>The Windle junction and gaps in the central reserve are located on the existing section of dual carriageway and therefore no changes are proposed to these features. The Order limits extend beyond this junction to allow for advanced directional signing for the Scheme and resurfacing works, if required.</p> <p>The scheme will improve the safety of The Windle junction by:</p> <ol style="list-style-type: none"> <li>1) Closing the lay-by Closing the lay-by to the west of The Windle removes the risk of side swipe and shunt type collisions currently associated with the short weaving length between the lay-by and The Windle.</li> <li>2) Providing advanced direction signing The current junction does not have any advanced direction signing which would warn drivers of the approaching junction for either vehicles turning into, or exiting, the junction. The closure of the lay-by enables this signing to be introduced.</li> <li>3) Provision of the new dual carriageway The continuity of the dual carriageway will provide a more free-flowing network, where currently The Windle junction sits at the start of a section of dual carriageway where vehicles will often be "platooned" behind slower vehicles and will be accelerating in lane two to pass before the end of the dual carriageway at Acle.</li> </ol> <p>The new compact grade separated junction at the B1140 will create an alternative safe means of crossing from the A47. The distance between the grade separated junction to the east of The Windle, at Acle, and the proposed B1140 is approximately 1.6km. This allows a safe alternative to carrying out right turns at the Windle. Again, due to the continuity of the dual carriageway a more free-flowing network will be provided, which should allow for more opportunities to safely cross at the central reservation.</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>15. Water Environment</b>			
1.15.1	EA / NCC	Are the parties satisfied with the Applicant's Flood Risk Assessment and drainage proposals, and if not, please provide reasons for this?	Response not required from the Applicant
1.15.2		There is limited data on groundwater conditions outside of the Order limits. Groundwater monitoring was also conducted over a dry period. Considering that all road drainage will drain by infiltration methods (ES Chapter 13: Road Drainage and Water Environment [APP-051], paragraph 13.9.16), that groundwater flooding susceptibility data is only available for a 500 metre corridor around the existing road and that there are areas to the south of the Order limits where there is potential for groundwater flooding (ES Chapter 13, paragraph 13.7.67), please explain how this influences the reliability of the assessments in Appendix 13.1: Flood Risk Assessment [APP-109] and ES Chapter 13?	<p>Susceptibility to groundwater flooding mapping shows one area to the south of the Proposed Scheme where there is the potential for groundwater flooding to properties below ground level (not above ground). This area coincides with a tributary of Run Dyke, where groundwater levels are anticipated to be significantly closer to ground level than directly below the Proposed Scheme.</p> <p>Groundwater levels are considered specifically in ES Appendix 13.3: Groundwater Assessment (<b>APP-111</b>) and ES Appendix 13.2: Drainage Strategy Report Annex D Technical note on deep drainage (<b>APP-110</b>). These reports highlight the significant depth to the water table beneath the Proposed Scheme, and whilst collected in a dry period, seasonal variation in groundwater levels are unlikely to result in a significant rise. The uncertainty over the seasonal maximum groundwater levels beneath the site is not considered to affect the reliability of either the Flood Risk Assessment (<b>APP-109</b>) or the ES Chapter 13: Road Drainage and Water Environment (<b>APP-051</b>), however further groundwater level monitoring will be undertaken at Stage 5 with the intention of confirming seasonal variation.</p>
1.15.3		The RR from NCC [RR-002] states in section 1.22 that "The climate change allowances applied within the proposed drainage strategy have been superseded." Please provide a response to this and address any implications for the drainage strategy / Flood Risk Assessment as a result.	<p>The RR from NCC [RR-002] refers to the use of a climate change of allowance of 20% for peak rainfall intensity as specified in DMRB CG501 (Section 4) and states this has been superseded as the appropriate climate change allowance, in accordance with relevant national legislation requirements, is 40%.</p> <p>Yes, in accordance with DMRB CG501 (Section 4.6) the peak intensity increase will be 40% as dictated by the Overseeing Organisation (in this case, Norfolk County Council) and national legislation requirements. As stated in the Drainage Strategy [APP-110], the drainage design has been designed using a climate change allowance of 20% but the design has been hydraulically</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>15. Water Environment</b>			
			<p>assessed using design storms with a 40% climate change allowance included. This assessment confirms that there is no detrimental impact from the proposed highway drainage, or from surface water flood flow pathways intercepted by the Scheme on downstream flood risk. The Flood Risk Assessment [APP-109] has been undertaken based on the consideration of the 40% climate change allowance.</p> <p>We confirm that the detailed design of the drainage systems will be designed in accordance with DMRB CG 501 – Design of Highway Drainage Systems, Section 5.3 with an allowance for 40% climate change for increase in peak rainfall intensity.</p>
1.15.4		<p>ES Chapter 13: Road Drainage and Water Environment [APP-051], paragraph 13.4.8, states that there are no proposed outfalls discharging to surface water. However, paragraph 13.5.5 states that, during construction, the main site compound runoff will be collected within a ditch and redirected to settlement ponds before being discharged to a surface watercourse or ground. Please clarify this matter.</p>	<p>The statement in paragraph 13.4.8 of ES Chapter 13: Road Drainage and Water Environment (<b>APP-051</b>) is correct; there are no proposed outfalls discharging to surface watercourses from the Proposed Scheme.</p> <p>Paragraph 13.5.5 states the temporary drainage design to be adopted during construction is to be confirmed and the assumption made in ES Chapter 13: Road Drainage and Water Environment (<b>APP-051</b>) was <i>“that the main site compound runoff will be collected within a ditch surrounding the compound and be redirected to settlement ponds before being discharged to a surface watercourse or ground.”</i> As there are no surface watercourses close to the Proposed Scheme, it is more appropriate to state <i>“that the main site compound runoff will be collected within a ditch surrounding the compound and be redirected to settlement ponds before being discharged to ground or alternatively collected and disposed of off-site.”</i> This would not affect the outcome of the assessment in ES Chapter 13: Road Drainage and Water Environment (<b>APP-051</b>).</p>
1.15.5		<p>A Drainage Strategy is provided at ES Appendix 13.2 [APP-110]. Should reference be made to this within Requirement 8 of the dDCO [APP-016]?</p>	<p>The dDCO requirement 8 has been amended to refer to the Drainage strategy</p>



Question number	Doc ref & question to	Question	Applicant's Response
<b>15. Water Environment</b>			
1.15.6		ES Chapter 13: Road Drainage and Water Environment [APP-051], paragraph 13.9.6, suggests that as there are construction activities planned immediately adjacent to a number of ordinary watercourses or drainage ditches, consent from NCC may be required. What consents would this involve and should these be identified in the Consents and Licences Position Statement [APP-018]?	As there are construction activities planned immediately adjacent to a number of ordinary watercourses or drainage ditches ( <b>APP-051</b> ), there may be a requirement for an ordinary watercourse consent(s) from Norfolk County Council. Further discussion with Norfolk County Council will take place at detailed design stage to determine exactly what consents are required. The Consents and Licences Position Statement ( <b>TR010040/APP/3.3 Rev 1</b> ) will be updated to reflect this.
1.15.7		ES Chapter 13: Road Drainage and Water Environment [APP-051], paragraph 13.9.12, refers to the need for a piling risk assessment (primarily in respect of overbridges and a retaining wall). Where is this secured, what would it involve and should it be specified in the dDCO [APP-016]?	The piling risk assessment is included in W9 in the Record of Actions and Environmental Considerations section of the Environmental Management Plan (EMP)( <b>AS-009</b> ). Compliance with the EMP will be secured by requirement 4 in the dDCO. This identifies potential environmental receptors such as groundwater abstractions, consideration of appropriate piling methods for the anticipated ground conditions and to minimise potential for groundwater contamination (including from suspended solids), and consideration of piling design to minimise potential impact on groundwater flow to nearby receptors.
1.15.8		ES Chapter 13: Road Drainage and Water Environment [APP-051], paragraph 13.9.14, makes reference to measures to minimise risk of contamination pathways relating to the gas pipeline diversion. What measures are envisaged and where are these secured?	<p>Best practice mitigation measures for the avoidance of spillages into an open excavation include:</p> <ul style="list-style-type: none"> <li>• Appropriate storage of construction materials, including bunding of storage tanks, the use of silt fencing and the covering of stockpiles.</li> <li>• The use of spill kits which should be located on sites near to ordinary watercourses or drainage ditches and within the works compounds. Staff should be trained in their use.</li> <li>• Emergency response procedures included in the EMP [APP-124] to handle any leakages or spillages of potentially contaminating substances.</li> </ul> <p>The measures shall be secured in the Water Monitoring and Management Plan as part of the EMP [APP-124].          The EMP is a live document that evolves with iterations. The Principal Contractor will develop the outline environmental management plans into full management plans prior to</p>

Question number	Doc ref & question to	Question	Applicant's Response
<b>15. Water Environment</b>			
			<p>construction.            The environmental actions and commitments specified in the EMP are to be secured by Requirement 4 in the draft Development Consent Order (dDCO) (<b>APP-016</b>), ensuring that they will be provided as part of the Proposed Scheme.</p>
1.15.9		<p>ES Chapter 13: Road Drainage and Water Environment [APP-051], makes reference to a temporary drainage strategy. Please clarify whether this is secured under Requirement 4 of the dDCO [APP-016] or Requirement 8, and how these two requirements, in respect of water management / drainage, differ?</p>	<p>The temporary drainage strategy will form part of the Water monitoring and management plan which is Annex B.1 of the EMP. This will be secured under Requirement 4 of the dDCO (<b>APP-016</b>).</p>
1.15.10		<p>RR [RR-053] raises a concern around potential for increased flood risk to Waterlow Cottage as a result of the Proposed Development. Please provide a response to this concern.</p>	<p>The Applicant has provided a response to RR-053 in The Applicant's response to Relevant Representations (<b>TR010040/EXAM/9.2</b>)</p>
1.15.11		<p>ES Chapter 13: Road Drainage and Water Environment [APP-051] refers to the 'Environmental Permitting (England and Wales) Regulations 2010'. This should be the Environmental Permitting (England and Wales) Regulations 2016. Please amend as necessary.</p>	<p>This has been noted and Chapter 13 (<b>APP-051</b>) amended and submitted at Deadline 1 (clean and tracked changes).</p>

## APPENDIX A – 1.1.10

Phase	Activity	Programme	Key Construction Activities	Work No
0	Site preparation and utility diversions	Six months (Month 1 to 6)	Utility Diversionary works completed including BT Openreach, Cadent Gas, Vodafone, Anglian Water, UKPN, Virgin media and Vodafone. Compound and welfare areas constructed for main works. Hardstanding areas will be constructed tops soil stripped and subbase installed. Areas for car parking will be surfaced as required. Clearance of vegetation undertaken as required to enable the works.	2,3,5,8,12,16,19,20,22,24,26,26A,26B,26C,31,37,42,43,44
1	Offline construction, including overbridges and retaining wall.	Twelve months (Month 6 to 17)	Construction of carriageway offline from existing A47. Activities including Topsoil strip, Cut/fill earthworks, Drainage installation, carriageway construction including capping and subbase and the bitumen bound layers. Road restraint installed. Road lighting installed where required. Offline structures including new overbridges and retaining walls. Sheet piling, bored piling and r/c concrete works will be undertaken.	1,13,14,14A,14B,15,17,18,21,23,25,27,30,32,34,35,39,40,41,
2	Construct the new Blofield Overbridge Southern Approach.	Four months (Month 9 to 12)	New Blofield Overbridge Southern Approach involves topsoil strip, cut/fill earthworks, drainage installation, carriageway construction including capping and sub-base and the bitumen bound layers.	1,4,6,7,10,11,
3	Traffic using Blofield Overbridge Southern Approach and construct further section of new carriageway.	Six months (Month 12 to 17)	Main works will involve completion of carriageway pavement and road restraint systems. Landscaping will commence. Road lighting installed where required.	1
4	Construct cross-overs either end of existing east bound dual carriageway. Small sections of contraflow used to enable new west bound carriageway to tie-in to existing A47. Traffic to remain on existing single carriageway.	Two months (Month 16 to 17)	Cross overs will be constructed by removing existing central reservation and road restraint either end of the Proposed Scheme. Central reservation will have carriageway construction inlaid.	1
5	Weekend and overnight closures (as required) to finalise tie-in to new westbound dual carriageway	One month (Month 17)	Tie ins will require existing carriageway to be cold milled and new overlays installed that join the new carriageway to the existing carriageway at either end of the Proposed Scheme.	1

Phase	Activity	Programme	Key Construction Activities	Work No
6	Traffic using new westbound carriageway as single carriageway. Construct connecting roads over now disused A47, remainder of approach ramps and east bound carriageway tie ins completed.	Five months (Month 17 to 21)	Completion of east bound carriageways. Construction of new approach ramps to new overbridge structures. Activities include topsoil strip, cut/fill earthworks, drainage installation, carriageway construction including capping and subbase and the bitumen bound layers. Road restraint installed. Road lighting installed where required. Landscaping works will continue.	1,9,17A,28,28A,29,33,36,38
7	Final tie ins and finishing works. Overnight closures used as required to tie in new eastbound carriageway.	Two 2 months (Month 20 to 21)	Final tie ins will require existing carriageway to be cold milled and new overlays installed that join the new carriageway to the existing carriageway at either end of the Proposed Scheme. On completion of final surfacing works traffic use new carriageways, temporary cross overs will be removed, permanent road markings will be installed, and road restraint systems will be completed at the temporary cross over locations.	1
8	Compound removal	Two months (Month 21 to 22)	Compound and site welfare will be removed. Hardstanding areas will be removed and the site re-top soiled. Area will be re-landscaped as required.	

## APPENDIX B – 1.1.11

Parameter	Paragraph Reference ES Chapter 2: The Proposed Scheme (APP-040)	Comment
Design	2.5.1	The Proposed Scheme description text should be read in conjunction with the Masterplan ( <b>APP-118</b> ) and the General Arrangement Plans ( <b>APP-009</b> ).
Height	2.6.46	The vertical limits of deviation are 1m up and 1m down referenced against the vertical profile levels indicated on the Engineering Drawings ( <b>APP-008</b> ).
Width	2.6.47	The horizontal limits of deviation are by up to a maximum of 3 metres either side of the centreline of that work as shown on the Works Plans ( <b>APP-006</b> ).
	2.6.48	In no case would the Proposed Scheme extend beyond the defined Order limits.
Existing baseline scenario	2.4.2 - 2.4.7	The existing conditions within the scheme boundary and surrounding area relevant to each of the individual topics is reported in chapters 5 to 14 of this Environmental Statement (ES) ( <b>APP-043 - APP-051</b> ) under the section 'Baseline Conditions'.
Future baseline scenario	2.4.8 – 2.4.9	The future baseline scenarios considered in the ES are defined in ES Chapter 4: Environmental Assessment Methodology ( <b>APP-042</b> ), and a list of developments included as part of the future baseline is provided.
Structures	2.5.30	The Proposed Scheme includes three new key structures. These structures comprise the Blofield Overbridge and B1140 Overbridge, as well as the West Retaining Wall (General Arrangement Plans ( <b>APP-009</b> )).
Lighting	2.5.37 – 2.5.43	The current lighting design is that 8m and 10m tall columns with LED luminaires would be located in verges (or at the back of footways where applicable) and oriented perpendicular to the carriageway. Luminaires would be mounted with zero degree tilts to ensure upward light spill is minimised.
		Electrical supply to the lighting columns would be connected to a feeder pillar with cables routed through ducting that is buried in verges and beneath the carriageway where applicable.
Construction programme	2.6.5 – 2.6.8	Construction is anticipated to take approximately 22 months. This would be carried out in phases, so not all sections of the Proposed Scheme would be under construction for the full period.  Enabling and site preparation work would be largely carried out during Phase 0, with the main works carried out during Phases 1 to 7 before final compound removal in Phase 8

Parameter	Paragraph Reference ES Chapter 2: The Proposed Scheme (APP-040)	Comment
Construction compounds and site access	2.6.9 – 2.6.11	<p>The main construction compound is proposed to the east of Lingwood Lane with an available area for a car park on the western side.</p> <p>Three satellite compounds are proposed. Two satellite compounds will service the construction of the proposed B1140 junction, one north of the junction and one to the west. The third satellite compound will service the west end of the Proposed Scheme. The compound would include temporary site offices, parking, and welfare facilities. ES Chapter 2: The Proposed Scheme (<b>APP-040</b>) Table 2-3 indicates indicative timings of use of each of the compound locations.</p>
Construction traffic	2.6.16 – 2.6.21	The outline traffic management plan ( <b>AS-011</b> ) defines the measures used to reduce the impacts from construction traffic, including measures to reduce worker vehicle movements and to reduce HGV movements, particularly at peak periods. This will be implemented by the contractor.
Plant and equipment	2.6.28 – 2.6.29	Plant numbers and usage will be determined by the chosen construction method although for the purposes of assessment, preliminary plant lists have been used.
Utilities	2.6.30 – 2.6.31	Diversion route corridors have been used as a worst case scenario to assess the potential impacts in line with EIA principles. These corridors are shown in the Works Plans ( <b>APP-006</b> ).
Demolition	2.6.32	The Proposed Scheme does not require the demolition of existing buildings or major structures.
Excavated materials	2.6.33	Construction of the Proposed Scheme would require excavation in places to form cuttings for the highway and this material would then be used to form embankments.

## APPENDIX C – 1.1.12

Design Requirement	How the Scheme meets the design principles
Functionality, fitness for purpose, improving operational/safety/security conditions	<ul style="list-style-type: none"> <li>• by 2040 the Scheme will generate between 45-56% time savings for the Beighton Road to Yarmouth Road stretch and 21-34% savings for the Acle Roundabout and Brundall Roundabout, even taking account of British Sugar Plc peak season with increased HGV demand (see the Transport Assessment (<b>TR010040/APP/7.3 rev1</b>))</li> <li>• the change in traffic flow, brought about by the Scheme, would have a negligible impact on the local road network and will have minimal impact on its operational performance</li> <li>• the existing A47 will serve as a local access road for residents with reduced traffic flows and including a combined footway/cycleway. Other new infrastructure, including a new PRow, will facilitate improved connectivity between Blofield and North Burlingham for WCH</li> <li>• over 60 years, the Scheme will save 190 accidents and 29 KSI's - £8 million in accident savings</li> <li>• reliability and network resilience will improve as a result of increased capacity, reduced delays and accidents as well as additional access for local journeys</li> <li>• no national security issues were identified in developing the Scheme nor were issues raised during the statutory consultation</li> <li>• site perimeters, entrances and exits, and landscaping, are of high importance in security terms and their design treatment will have a moderate beneficial impact</li> </ul>
Sustainability, efficiency in the use of natural resources and energy	<ul style="list-style-type: none"> <li>• the Scheme will underpin sustainable economic growth in the local and wider areas</li> <li>• it will relieve congestion for the benefit of users and potential investors, result in safer connections and a reduction in accidents and provide for improved PRow connections to support the provision of sustainable travel</li> <li>• a key design principle has been to minimise effects on soils and ensure that the footprint of the Scheme is reduced as much as practicable</li> <li>• materials will be reused within or outwith the Scheme in line with best practice. A Materials Management Plan and Soil Management will be put in place to ensure these actions take place</li> <li>• mitigation measures in the Outline SWMP (<b>TR010040/APP/6.2 rev1</b>) and the EMP (<b>TR010040/APP/7.7 rev2</b>) include the use of site-won or recycled material assets where possible, in the construction of the Scheme</li> <li>• the increase in carbon emissions resulting from the Scheme is not considered so significant that it would have a material impact on the ability of the Government to meet its carbon reduction targets</li> <li>• use of the Applicant's Carbon Tool has allowed consideration of carbon in the design process resulting in the development of a carbon baseline from which further reductions may be made.</li> </ul>
Good aesthetical appearance as far as possible	<ul style="list-style-type: none"> <li>• the applicant has limited choice in the physical appearance of national networks infrastructure. In the Scheme development, the process of routeing siting and design of the structures has considered factors such as relative to existing landscape and historical character (see the Scheme Design Report (<b>TR010040/APP/7.6 rev 1</b>))</li> <li>• landscape and visual mitigation design measures embedded in the Scheme design are described in ES Chapter 7 Landscape and Visual, Section 7.9 (<b>APP-045</b>) and illustrated and detailed in the Masterplan (<b>TR010040/APP/6.8 rev1</b>) and include planting, preservation of views, creation of attenuation ponds and earth profiling</li> </ul>

Design Requirement	How the Scheme meets the design principles
Minimising and mitigating safety impacts	<ul style="list-style-type: none"> <li>the single carriageway section of the A47 between Blofield and North Burlingham lies between two dual carriageway sections of the A47 and has a poor safety record</li> <li>the Scheme was designed to comply with DMRB which sets the standards for safe highway design. Road safety audits have been undertaken and will continue to be undertaken as the detailed design progresses.</li> <li>the Scheme has considered safety and is designed to decrease the overall number of accidents on the road network from downgrading the existing A47 alignment to local road status, to the provision of new cycling and walking infrastructure, providing safety improvements for walking, cycling and other vulnerable users</li> <li>the Scheme will improve safety along the A47 for road users by providing an upgraded dual carriageway alignment and an upgraded A47/B1140 interchange junction</li> <li>over 60 years, it is anticipated that the Scheme will save 190 accidents and 29 KSI's - £8 million in accident savings</li> <li>once the Scheme is complete a Road Safety Audit will be undertaken to assess its safety and operational aspects. If additional measures are then required, it will follow on from this assessment</li> </ul>
Minimising and mitigating environmental impacts	<ul style="list-style-type: none"> <li>the environmental impacts are assessed in the relevant chapters of the ES (<b>APP-039</b> to <b>APP-053</b>) and a summary of the significant environmental effects is included in Table 6.1 of the Case for the Scheme (<b>TR010040/APP/7.1 rev1</b>)</li> <li>the REAC included within the EMP (<b>TR010040/APP/7.7 rev2</b>) sets out the environmental mitigation measures that would be implemented during construction, why measures are required, who is responsible for delivering them and any ongoing maintenance and monitoring arrangements. The EMP is secured through Requirement 4 to the Draft DCO (<b>TR010040/APP/3.1 rev1</b>)</li> <li>potential environmental impacts were considered from the early stages of the project's development including the appraisal of the options prior to the announcement of the preferred route option (see the Scheme Design Report (<b>APP-7.6</b>). Environmental issues are not the only consideration however and the NPS NN acknowledges that some schemes will unavoidably result in limited adverse impacts but that these should not outweigh the positive benefits. The positive benefits of the Scheme are set out in the Case for the Scheme (<b>TR010040/APP/7.1 rev1</b>)</li> </ul>
Durability, adaptability and resilience	<ul style="list-style-type: none"> <li>the vulnerability of the Scheme to projected changes in climate during operation has been assessed in line with DMRB Climate guidance LA 114 and IEMA Climate Change Resilience &amp; Adaptation Guidance and the Scheme has been deemed resilient to the current projections provided by the Met Office (as set out in ES Chapter 14 Climate (<b>APP-052</b>))</li> <li>assets of the Scheme (e.g. highways, pavement, and structures) likely to be vulnerable to climate change have adhered to inherent design considerations and standards to account for climate resilience. This is included in the design as set out in the DCO application (see the General Arrangement Plans (<b>TR010040/APP/2.6 rev1</b>)) and the Engineering Drawings and Sections (<b>APP-008</b>)). The detailed design is secured by Requirement 3 to the draft DCO (<b>TR010040/APP/3.1 rev1</b>)</li> <li>the Scheme has been designed to minimise the risk of flooding <u>as a result of</u> the new works, and also the risk of flooding <u>to</u> the Scheme, by incorporating current design standards and future climate change allowances to improve its resilience</li> <li>no significant effects as a result of climate change are anticipated,</li> <li>the increased capacity provided by the additional lanes will increase the resilience of the highway, for example, in the event of a road traffic accident, breakdowns, maintenance and extreme weather</li> </ul>



Design Requirement	How the Scheme meets the design principles
Use of professional, independent advice on the design aspects of the proposal	<ul style="list-style-type: none"> <li>• a qualified team of highway engineers, advised by environmentalists, transportation consultants, town planners and various other professions contributed to the design of the Scheme options which were assessed, using Highway England's objectives</li> <li>• following consideration of the responses to the statutory consultation and further design work the Preferred Option was refined and was the subject of a further focused statutory consultation. This included consideration of the land required for the necessary utilities diversions and resulted in minor changes to the red line boundary presented at the statutory consultation</li> <li>• stakeholder engagement included several meetings with Norfolk County Council, Broadlands District Council and Environmental Bodies such as the Environment Agency, Natural England and Historic England</li> <li>• full details of engagement and consultation are set out in the Consultation Report (<b>APP-022</b>)</li> </ul>
Siting and design in relation to landscape and historical character and function	<ul style="list-style-type: none"> <li>• the Scheme has been designed to move traffic further away from the setting of the Grade I listed St Andrew's Church in North Burlingham. Character will be maintained through retaining/providing an appropriate density of planted screening</li> <li>• conservation of two mileposts and a guidepost along the route of the existing A47 is planned, which Highways England will also propose for listing by Historic England</li> <li>• opportunities to enhance the cultural heritage of the area are proposed in the form of a new viewpoint and potential information boards as well as renaming of the proposed layby to reference historic parkland. These measures will improve public awareness and appreciation of the history of North Burlingham</li> </ul>
Enrichment of ecosystems. Net biodiversity gain	<ul style="list-style-type: none"> <li>• ES Chapter 8: Biodiversity (<b>TR010040/APP/6.1 rev1</b>) assesses the potential effects on sites, habitats and species of conservation importance including indirect effects. A Biodiversity net loss calculation has also been carried out to quantify biodiversity losses and gains.</li> <li>• the Masterplan (<b>TR010040/APP/6.8 rev1</b>) has been developed to take into account opportunities to conserve and enhance biodiversity. It also identifies areas for habitat creation to mitigate for the loss of Habitats of Principal Importance (HPI)</li> <li>• there will be a net gain of more biodiverse grasslands with the introduction of species-rich and marshy, wet grassland</li> </ul>
Demonstration of evolution of the design and why the design was chosen	<ul style="list-style-type: none"> <li>• the Scheme development history and options is fully detailed within ES Chapters 2 and 3 (<b>TR010040/APP/6.1 rev1</b>), Section 2 of the Case for the Scheme (<b>TR010040/APP/7.1 rev1</b>) and the SDR (<b>TR010040/APP/7.6 rev1</b>) including the key features of the design presented at consultation and the Scheme which is included within the application</li> <li>• Option 4 (the 'Preferred Route') was the option also favoured by the public in the feedback to the non-statutory consultation by a significant margin. It will solve the traffic and safety problems as identified in the A47/A12 Corridor Feasibility Study; it can be built with the least disruption to drivers during construction; would have the least impact on the environment; and the existing road could remain for local traffic, pedestrians, cyclists and equestrians</li> </ul>

Design Requirement	How the Scheme meets the design principles
Mitigation and offsetting of carbon emissions	<ul style="list-style-type: none"> <li>the need to adapt to climate change has been taken into consideration as part of the Scheme assessment and design. ES Chapter 14 Climate (TR010040/APP/6.1 rev1) assesses the impact of the Scheme and sets out mitigation to minimise carbon through design and construction</li> <li>the UK government announcement on ending the sale of new petrol and diesel vehicles by 2030 will further reduce the Scheme's end user carbon emissions</li> <li>when compared with total UK carbon budget figures, the increase in emissions resulting from the Scheme are relatively minor, e.g. 0.001%</li> <li>the construction, operation and use of the Scheme is predicted to increase carbon emissions by approximately 159,102 tonnes carbon dioxide equivalent (tCO<sub>2</sub>e) over the appraisal period of 60 years (up to 2085)</li> <li>as carbon budgets do not exist for the majority of the appraisal period, a definitive assessment of materiality is not possible, however DMRB guidance also requires all projects to minimise carbon emissions</li> <li>the selection of a two-span bridge option for both overbridges resulted in carbon savings associated with reduced earthworks and structural material quantities. The use of the Highways England Carbon Tool to monitor and manage carbon will continue throughout the construction period to ensure an ongoing focus on climate change mitigation</li> <li>the vulnerability of the Scheme to projected changes in climate during operation has been assessed and the Scheme has been deemed resilient to the current projections provided by the Met Office</li> <li>no significant effects as a result of climate change are anticipated,</li> </ul>
Meeting the needs of people, ease of use, reliability, inclusivity.	<ul style="list-style-type: none"> <li>the Scheme is not anticipated to affect any particular social group in accessing the services they require. Changes in the cost or provision of public transport will not result from the Scheme</li> <li>the overall spread of benefits is evenly distributed across the identified income distribution areas with a large proportion of the benefits being given to the medium income groups</li> <li>the Scheme is forecast to generate wider economic impacts and journey time reliability benefits. The value for the total wider economic impacts is @ £40.6 million, whilst for journey time reliability it is £3.3 million</li> </ul>
Achievement of multiple benefits. Solving defined issues.	<ul style="list-style-type: none"> <li>the A47 corridor is expected to continue to grow with over 50,000 new jobs and 100,000 new homes planned over the next 15 years with growth hotspots at Peterborough, Kings Lynn, Norwich and Great Yarmouth and Lowestoft</li> <li>growth is forecast to result in increased traffic levels on sections of the route and therefore add to congestion and other problems. Also, proposed developments could be constrained by the capacity limitations on the highway network to accommodate additional trips</li> <li>the main issues for the route relate to capacity; some of the links and junctions are currently, or will be, over capacity. This impacts on the route reliability and creates journey time delays. It also can cause traffic to divert onto the highway network and generate further issues. There are safety issues in certain locations where there are currently high collision and incident rates that could be addressed.</li> <li>a study identified 32 challenges along the route with the majority being capacity issues along the full extent. Other challenges raised relate to asset condition, network operation, safety and social and environmental issues and also lack of realistic alternatives to support planned growth, hence the need for interventions to address such problems</li> </ul>

Design Requirement	How the Scheme meets the design principles
<p>Review and interrogation of brief and design to secure economic, environmental and social benefits, adding value beyond the main purpose of the Scheme and its boundaries</p>	<ul style="list-style-type: none"> <li>the applicant and its project team has reviewed the scheme in response to consultation feedback, survey results, assessment outcomes, new information coming to light and advice from statutory undertakers as set out in the Consultation Report Annex O (<b>APP-035</b>) and the SDR (<b>TR010040/APP/7.6 rev1</b>)</li> <li>the monetised value for the total wider economic benefits is circa £40.6 million, with the majority of these benefits being derived from the agglomeration assessment. This suggests that business users are the main beneficiaries from the enhanced connectivity and congestion reductions brought about by the Scheme and that there will be an overall, long-term positive impact</li> <li>mitigation measures are set out in the ES (<b>APP-039 to APP-053</b>), EMP (<b>TR010040/APP/7.7 rev2</b>) and Masterplan (<b>TR010040/APP/6.8 rev1</b>). The Scheme's BNG Metric score stands at a percentage net change greater than 40%. (see the Applicants response to ExA First Written Question 1.3.11 in this document (<b>TR010040/EXAM/9.3</b>))</li> <li>the social benefits secured by the Scheme in relation to accident reduction, security, and journey quality are beneficial. There may be some slight adverse impacts in relation to severance associated with accessing medical, education and leisure facilities however these are not deemed to be outweighed by the positive benefits</li> </ul>
<p>Savings on cost, the environment, materials and space.</p>	<ul style="list-style-type: none"> <li>With consideration of the effects of delays during construction, accident benefits, indirect taxation benefits, monetised environmental impacts and maintenance costs, the Scheme is High Value for Money (VfM). An overview of the economic benefits of the Scheme is provided in Section 5 of the Case for the Scheme (<b>TR010040/APP/7.1 rev1</b>)</li> <li>in exercising its functions, one of Highway England's legal duties is to minimise the environmental impacts of operating, maintaining and improving its network and seek to protect and enhance the quality of the surrounding environment. This underpins the Scheme's development and design</li> <li>design, mitigation and enhancement measures will be implemented during construction and controlled through the Environmental Management Plan (<b>TR010040/APP/7.7 rev1</b>) to mitigate environmental impacts</li> <li>a key design principle has been to minimise effects on soils and ensure that the footprint of the Scheme is reduced as much as practicable</li> <li>a Materials Management Plan and Soil Management will be put in place during construction to ensure these matters are given consideration</li> </ul>

## APPENDIX D – 1.1.14

ExA Question 1.1.14 – Policy Compliance with Broadland Development Plan	
Policy	Reasons for Conformity
<b>Greater Norwich Development Partnership Joint Core Strategy for Broadland, Norwich and South Norfolk 2011 (amended 2014)</b>	
<p><b>Policy 1: Addressing climate change and protecting environmental assets</b></p> <p>To address climate change and promote sustainability, all development will be located and designed to use resources efficiently, minimise greenhouse gas emissions and be adapted to a changing climate and more extreme weather. Development will therefore:</p> <ul style="list-style-type: none"> <li>• be energy efficient</li> <li>• provide for recycling of materials</li> <li>• use locally sourced materials wherever possible</li> <li>• be located to minimise flood risk, mitigating any such risk through design and implementing sustainable drainage</li> <li>• minimise water use and protect groundwater sources</li> <li>• make the most efficient appropriate use of land, with the density of development varying according to the characteristics of the area, with the highest densities in centres and on public transport routes</li> <li>• minimise the need to travel and give priority to low impact modes of travel</li> <li>• be designed to mitigate and be adapted to the urban heat island effect in Norwich</li> <li>• improve the resilience of ecosystems to environmental change.</li> </ul> <p>The environmental assets of the area will be protected, maintained, restored and enhanced and the benefits for residents and visitors improved. Development and investment will seek to expand and link valuable open space and areas of biodiversity importance to create green networks. Where there is no conflict with biodiversity objectives, the quiet enjoyment and use of the natural environment will be encouraged and all proposals should seek to increase public access to the countryside.</p> <p>All new developments will ensure that there will be no adverse impacts on European and Ramsar designated sites and no adverse impacts on European protected species in the area and beyond including by storm water runoff, water</p>	<p>ES Chapter 14 Climate (<b>APP-052</b>) considers the increases in carbon emissions resulting from the Scheme and the vulnerability of the Scheme assets to projected changes in climate during operation and construction. The latest UK Climate Projections have been used and the Scheme has been deemed resilient.</p> <p>Highways, pavements and structures have adhered to design considerations and standards to account for climate resilience. Specific design considerations are detailed within the individual topic chapters of the ES.</p> <p>The primary aim will be to avoid the creation of waste followed by , recycling, recovery and disposal to landfill as per the internationally recognised waste hierarchy, (see ES Appendix 10.3 Outline SWMP (<b>APP-102</b>). The EMP (<b>APP-124</b>) describes the environmental mitigation measures that would be implemented during construction including measures to minimise waste:</p> <ul style="list-style-type: none"> <li>• re-using waste generated on-site</li> <li>• use of site-won or recycled material assets</li> <li>• use of material logistics planning to manage responsible local resourcing of material assets minimal ordering of materials, appropriate segregation and storage-site by waste type, to facilitate re-use.</li> </ul> <p>The drainage design includes capacity for climate change projections. The FRA, (ES Appendix 13.1 (<b>APP-109</b>)) has considered the risk to the Scheme and the risk posed by the Scheme on flooding from all sources. The increase in fluvial, tidal and groundwater flood risk from the Scheme to others is considered negligible, therefore no mitigation is required.</p> <p>A Walking, Cycling, Horse-riding Assessment and Review (WCHR) process has been undertaken as part of the Scheme and is summarised in ES Chapter 12 Population and Human Health (<b>APP-050</b>). The scheme creates</p>

ExA Question 1.1.14 – Policy Compliance with Broadland Development Plan	
Policy	Reasons for Conformity
<p>abstraction, or sewage discharge. They will provide for sufficient and appropriate local green infrastructure to minimise visitor pressures. Development likely to have any adverse effect on nationally designated sites and species will be assessed in accordance with national policy and legislation.</p> <p>In areas not protected through international or national designations, development will:</p> <ul style="list-style-type: none"> <li>• minimise fragmentation of habitats and seek to conserve and enhance existing environmental assets of acknowledged regional or local importance. Where harm is unavoidable, it will provide for appropriate mitigation or replacement with the objective of achieving a long term maintenance or enhancement of the local biodiversity baseline</li> <li>• contribute to providing a multifunctional green infrastructure network, including provision of areas of open space, wildlife resources and links between them, both off site and as an integral part of the development</li> <li>• help to make provision for the long term maintenance of the green infrastructure network</li> <li>• protect mineral and other natural resources identified through the Norfolk Minerals and Waste Development Framework The built environment, heritage assets, and the wider historic environment will be conserved and enhanced through the protection of buildings and structures which contribute to their surroundings, the protection of their settings, the encouragement of high-quality maintenance and repair and the enhancement of public spaces.</li> </ul> <p>Contributes to spatial planning objectives 1 and 9.</p>	<p>new footpaths and cycleways, improving public access to the countryside.</p> <p>ES Chapter 8 Biodiversity (<b>APP-046</b>) considers any required mitigation in relation to ecosystems.</p> <p>After mitigation, residual effects to bat roosts will be neutral. Disturbance from noise, vibration and light spill is not predicted to cause residual effects and bat mortality through traffic collisions is predicted to be less likely once remediated roadside trees mature. Until an agreement has been reached as a result of pending consultation, the effects of the Scheme upon Barbastelle bats remains of Moderate Adverse significance.</p> <p>The Masterplan (<b>TR010040/APP/6.8 rev2</b>) includes opportunities to conserve and enhance biodiversity.</p> <p>Paragraph 1.2 of the NPS NN acknowledges that some schemes will unavoidably result in limited adverse impacts but that these should not outweigh the positive benefits. The residual impacts of this Scheme, following mitigation, do not outweigh its positive overall benefits.</p> <p>No significant effects have been found in relation to European Sites and therefore an Appropriate Assessment is not required. Decoy Carr SSSI is unlikely to be impacted by the Scheme either directly or indirectly and there are no National Nature Reserves nor ancient woodland within the study area. No aged or veteran trees have been identified.</p> <p>Though the Scheme intersects part of a known sand and gravel reserve, sand and gravel will be excavated and reused where possible during construction (ES Appendix 10.4 Mineral Impact Assessment (<b>APP-103</b>)). As set out in ES Chapter 6 Cultural Heritage (<b>APP-044</b>) adverse impacts on cultural heritage have been reduced or eliminated through sensitive design and targeted mitigation. Where unavoidable, a programme of archaeological recording and publishing will mitigate the impact. Significant beneficial effects have been identified for the setting of the Grade I listed St Andrew's Church in North Burlingham by moving traffic further away and maintaining an appropriate density of planted screening.</p>

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Policy	Reasons for Conformity
<p><b>Policy 2: Promoting good design</b>            All development will be designed to the highest possible standards, creating a strong sense of place. In particular development proposals will respect local distinctiveness including as appropriate:</p> <ul style="list-style-type: none"> <li>• the historic hierarchy of the city, towns and villages, maintaining important strategic gaps</li> <li>• the landscape setting of settlements including the urban/rural transition and the treatment of 'gateways'</li> <li>• the landscape character and historic environment, taking account of conservation area appraisals and including the wider countryside and the Broads area</li> <li>• townscape, including the city and the varied character of our market towns and villages</li> <li>• provision of landscaping and public art</li> <li>• the need to ensure cycling and walking friendly neighbourhoods by applying highway design principles that do not prioritise the movement function of streets at the expense of quality of place</li> <li>• the need to increase the use of public transport, including through 'public transport oriented design' for larger development</li> <li>• designing out crime</li> <li>• the use of sustainable and traditional materials</li> <li>• the need to design development to avoid harmful impacts on key environmental assets and, in particular SACs, SPAs and Ramsar sites.</li> </ul> <p>This will be achieved by ensuring that:</p> <ul style="list-style-type: none"> <li>• major development areas providing over 500 dwellings or 50,000m2 of non-residential floorspace, and areas of particular complexity will be masterplanned using an inclusive, recognised process demonstrating how the whole scheme will be provided and ensuring that it is well related to adjacent development and infrastructure</li> <li>• all residential development of 10 units or more will be evaluated against the Building for Life criteria published by CABI (or any successor to this standard), achieving at least 14 points (silver standard)</li> <li>• Design and Access Statements for non-residential development will show how the development will meet similar high standards.</li> </ul>	<p>The design principles of the Scheme are considered in the Scheme Design Report (<b>APP-123</b>). Design:</p> <ul style="list-style-type: none"> <li>• makes roads safe and useful</li> <li>• is inclusive</li> <li>• makes roads understandable</li> <li>• fills in context</li> <li>• is restrained</li> <li>• is thorough</li> <li>• is environmentally sustainable</li> <li>• is innovative</li> <li>• is long lasting</li> <li>• is a collaborative process</li> </ul> <p>The Scheme considers and applies each of the design principles. The Masterplan (<b>APP-118</b>) presents the final design, and mitigation measures, in relation to landscape character and permeability, landform, vegetation and historic character. This has been informed by the ES technical assessments (<b>APP-043</b> to <b>APP-053</b>) in collaboration with stakeholder engagement.</p> <p>The following ES chapters identify design and mitigation measures in relation to landscape and historical character and function, landscape permeability, landform and vegetation respectively:</p> <ul style="list-style-type: none"> <li>• Chapter 6 Cultural Heritage (<b>APP-044</b>)</li> <li>• Chapter 7: Landscape and Visual effects (<b>APP-045</b>)</li> <li>• Chapter 8: Biodiversity (<b>APP-046</b>)</li> </ul>

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Policy	Reasons for Conformity
<p>Contributes to spatial planning objectives 8, 9, 10 and 11.</p> <p><b>Policy 5: The Economy</b>            The local economy will be developed in a sustainable way to support jobs and economic growth both in urban and rural locations. This will:</p> <ul style="list-style-type: none"> <li>• provide for a rising population and develop its role as an engine of the wider economy</li> <li>• facilitate its job growth potential with a target of at least 27, 000 additional jobs in the period 2008-2026</li> <li>• increase the proportion of higher value, knowledge economy jobs while ensuring that opportunities are available for the development of all types and levels of jobs in all sectors of the economy and for all the workforce.</li> </ul> <p>Sufficient employment land will be allocated in accessible locations consistent with the 'Policies for places' in this strategy to meet identified need and provide for choice. In particular:</p> <ul style="list-style-type: none"> <li>• the needs of small, medium and start-up businesses will be addressed through the allocation of new smaller scale employment sites and the retention of, and the potential expansion of, a range of existing small and medium employment sites across the area and by requiring the provision of small-scale business opportunities in all significant residential and commercial developments. Flexible building design and innovative approaches will be sought in new and existing residential developments to encourage local working and business opportunities</li> <li>• larger scale needs will be addressed through the allocation of sufficient land to provide a choice and range of sites. Development Plan Documents and investment strategies will ensure that a readily available supply of land is maintained throughout the Joint Core Strategy period</li> <li>• investment strategies will focus on overcoming constraints to the release and development of key sites</li> <li>• land identified for employment uses on proposals maps will only be considered for other uses that are ancillary and supportive to its employment role. Employment land with potential for redevelopment for</li> </ul>	<p>As described in the Case for the Scheme (<b>APP-120</b>) the Scheme is included in the Department of Transport's Road Investment Strategy 2 (RIS2) for 2020-2025. It will upgrade part of the existing A47 creating appropriate capacity to cope with peak demand and growth on the SRN, and provide a free flowing, safe, reliable and resilient network for the future. This will enable significant increases in traffic and a related reduction in delays. The dualling will also improve safety and reduce accidents on the route. Additional road capacity and increased, safe, connectivity makes the local area, and the east, more attractive for businesses to locate and helps promoting a competitive local economy supporting employment and residential development opportunities.</p> <p>The economic appraisal of the Scheme has adopted a 60 year appraisal period and used a Benefit to Cost Ratio (BCR) to compare the Scheme cost to its benefits over this period. This is set out in the Case for the Scheme Chapter 5 Economic Case Overview (<b>APP-120</b>).</p> <p>The Scheme generates a Present Value Benefit (PVB) of £109.9 million with costs at £46.4 million (PV). This represents "High" Value for Money (VfM).</p> <p>The Scheme is also forecast to generate wider economic impacts and journey time reliability benefits. The value for the total wider economic impacts is about £40.6 million, whilst for journey time reliability it is £3.3 million. Inclusion of journey time reliability benefits and wider economic impacts gives an adjusted BCR of 3.3 which also represents "High" VfM.</p>

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Policy	Reasons for Conformity
<p>other uses will be identified in supporting DPDs or SPDs.</p> <p>Opportunities for innovation, skills and training will be expanded through:</p> <ul style="list-style-type: none"> <li>• facilitating the expansion of, and access to, vocational, further and higher education provision</li> <li>• encouraging links between training/ education provision and relevant business concentrations including co-location where appropriate</li> <li>• support for enterprise hubs at Norwich Research Park, the University of East Anglia, EPIC (East of England Production Innovation Centre), and Hethel, and at easily accessible locations in the area.</li> </ul> <p>Tourism, leisure, environmental and cultural industries will be promoted. This will be assisted by:</p> <ul style="list-style-type: none"> <li>• the general emphasis of the Joint Core Strategy on achieving high quality design, resource efficiency, environmental enhancement and retention of local distinctiveness</li> <li>• implementation of the green infrastructure network</li> <li>• encouragement for appropriate development including sustainable tourism initiatives</li> <li>• encouragement for development that creates a supportive environment for cultural industries</li> <li>• promotion of the creative industries cluster</li> <li>• support for cultural initiatives including festivals.</li> </ul> <p>The rural economy and diversification will also be supported by:</p> <ul style="list-style-type: none"> <li>• a preference for the re-use of appropriate redundant non-residential buildings for commercial uses, including holiday homes to support the tourism industry (affordable housing may be an acceptable alternative use)</li> <li>• promotion of farmers markets, farm shops and cottage industry, including</li> <li>• e-commerce in villages</li> <li>• the development of a flagship food and farming hub serving the needs of Norfolk and supporting the agri-food sector in and around greater Norwich</li> </ul>	



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Policy	Reasons for Conformity
<ul style="list-style-type: none"> <li>• promoting the development of appropriate new and expanded businesses, which provide either tourism or other local employment opportunities.</li> </ul> <p>Contributes to spatial planning objectives 1, 3, 4, 8 and 9.</p>	
<p><b>Policy 6: Access and Transportation</b>                      The transportation system will be enhanced to develop the role of Norwich as a Regional Transport Node, particularly through the implementation of the Norwich Area Transportation Strategy and will improve access to rural areas. This will be achieved by:</p> <ul style="list-style-type: none"> <li>• implementation of the Norwich Area Transportation Strategy (NATS) including construction of the Northern Distributor Road (NDR)</li> <li>• significant improvement to the bus, cycling and walking network, including Bus Rapid Transit on key routes in the Norwich area</li> <li>• enhancing the Norwich Park &amp; Ride system</li> <li>• promoting enhancement of rail services, including improved journey time and reliability to London and Cambridge, and innovative use of the local rail network</li> <li>• provision of an A140 Long Stratton Bypass</li> <li>• promoting improvements to the A11 and A47</li> <li>• supporting the growth and regional significance of Norwich International Airport for both leisure and business travel to destinations across the UK and beyond</li> <li>• concentration of development close to essential services and facilities to encourage walking and cycling as the primary means of travel with public transport for wider access</li> <li>• provision of IT links, telecommunications and promotion of home working</li> <li>• protection of the function of strategic transport routes (corridors of movement)</li> <li>• continued investigation of and support for rail freight opportunities</li> <li>• continuing to improve public transport accessibility to and between Main Towns and Key Service Centres</li> <li>• promoting local service delivery</li> <li>• continuing to recognise that in the most rural areas the private car will</li> </ul>	<p>As described in the Case for the Scheme (<b>TR010040/APP/7.1 rev1</b>) the Scheme is included in the Department of Transport's Road Investment Strategy 2 (RIS2) for 2020-2025 which identifies a list of schemes to be developed by Highways England over the period covered by the RIS.</p> <p>The Scheme will upgrade part of the existing A47 (which forms part of the SRN) to a modern higher performing standard which will enable significant increases in traffic volumes using the A47 through increased capacity and a reduction in delays. These improvements will make the local area, and the east, more attractive for businesses to locate and help in promoting a competitive local economy. The dualling will also improve safety and reduce accidents on the route.</p>

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<p>remain an important means of travel.</p> <p>Fast broadband connections will be promoted throughout the area. All new development must demonstrate how it contributes to this objective.</p> <p>Contributes to spatial planning objectives 1, 3, 4, 6, 7 and 11.</p>	
<p><b>Policy 7: Supporting Communities</b>            All development will be expected to maintain or enhance the quality of life and the well being of communities and will promote equality and diversity and protect and strengthen community cohesion.</p> <p>In order to deliver thriving communities, tackle social deprivation and meet diverse needs across the area, a multi-agency approach will be required to ensure that facilities and services are available as locally as possible, considering the potential for colocation, and are accessible on foot, by cycle and public transport.</p> <p><b>Health</b>            Appropriate and accessible health facilities and services will be provided across the area including through new or expanded primary health facilities serving the major growth locations. Health Impact Assessments will be required for large-scale housing proposals. Provision will be made for the expansion of the Norfolk and Norwich University Hospital to meet the needs of growing communities.</p> <p>Healthier lifestyles will be promoted by maximising access by walking and cycling and providing opportunities for social interaction and greater access to green space and the countryside.</p> <p>An expansion of care home provision specialising in dementia care will be required with particular needs in Norwich, the north and west of Broadland NPA, Wymondham, Long Stratton and Loddon and/or Poringland. Additional care homes with nursing provision are mostly required in Norwich or its immediate environs, with some provision needed in Acle, Wymondham/Long Stratton/Loddon.</p> <p><b>Crime</b></p>	<p>ES Chapter 12 Population and Human Health (<b>APP-050</b>) considers matters relating to human health, WCH, effects on private land and property, agricultural land and effects on community land and assets.</p> <p>The following have been considered in relation to the impact of the Scheme on human health include:</p> <ul style="list-style-type: none"> <li>• health profiles of affected communities</li> <li>• health determinants, including:               <ul style="list-style-type: none"> <li>- access to healthcare facilities</li> <li>- access to community, recreation and education facilities</li> <li>- access to green and open space</li> <li>- existing and predicted levels of air and noise pollution</li> <li>- landscape amenity</li> <li>- sources and pathways of potential pollution (eg. land and water contamination)</li> <li>- safety</li> </ul> </li> <li>• likely health outcomes</li> </ul> <p>It has been determined that impacts on population and human health will be predominantly non-significant once the Scheme is operational.</p> <p>Although there will be effects on PROW and users of Burlingham FP3, as a result of a section of the footpath being realigned, the Scheme will include new footway routes via the Blofield Overbridge and the B1140 Overbridge. A new combined footway/cycleway will also be provided along a section of the existing A47 with lower traffic levels and slower speeds. A new public right of way is included south of the proposed A47 mainline running east to west.</p> <p>In socio-economic terms, there will be an £8m benefit through accident</p>

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<p>New police facilities will be provided to serve areas of major growth and areas which are deficient. Development will be well designed, to include safe and accessible spaces where crime and fear of crime are minimised.</p> <p><b>Education</b>            Provision will be made for sufficient, appropriate and accessible education opportunities for both residents and non-residents, including:</p> <ul style="list-style-type: none"> <li>• wider community use of schools, including through design</li> <li>• new primary and new or expanded secondary schools to serve the major growth locations</li> <li>• promoting the 'learning city' role of Norwich by facilitating the continuing enhancement of tertiary education facilities including the University of East Anglia, the Norwich University College of the Arts, City College and Easton College.</li> </ul> <p><b>Community infrastructure and cohesion</b>            Provision will be made to ensure equitable access to new and improved community halls, including new provision on major developments. This will provide facilities for use by a wide range of groups, including faith communities. Expanded library provision will be made including through new or expanded facilities in major growth locations.</p> <p>Integration and cohesion within and between new and existing communities will be promoted including through support for community development workers and the early engagement of existing communities in the design process.</p> <p>Contributes to spatial planning objectives 1, 4, 5, 6, 7, 8 and 10.</p> <p><b>Policy 9: Strategy for growth in the Norwich Policy Area</b>            The Norwich Policy Area (NPA) is the focus for major growth and development. Housing need will be addressed by the identification of new allocations to deliver a minimum of 21,000 dwellings distributed across the following locations:</p> <ul style="list-style-type: none"> <li>• Norwich City Council area: 3,000 dwellings</li> <li>• Old Catton, Sprowston, Rackheath and Thorpe St Andrew growth triangle: 7,000 dwellings by 2026 continuing to grow to around 10,000</li> </ul>	<p>savings; neutral impacts on physical activity, public transport and accessibility; a moderate beneficial impact on security and slight beneficial impact on journey quality; though a slight adverse impact associated with accessing medical, education and leisure facilities, as set out in the Case for the Scheme (<b>TR010040/APP/7.1 rev1</b>).</p> <p>Paragraph 1.2 of the NPS NN acknowledges that some schemes will unavoidably result in limited adverse impacts but that these should not outweigh the positive benefits. The National Networks National Policy Statement Accordance Tables (<b>APP-121</b>) outline the Scheme's compliance with the NPS NN. The residual impacts of this Scheme, following mitigation, do not outweigh its positive overall benefits.</p> <p>Congestion is a barrier to economic growth. Norwich, Cambridge and Peterborough are among the fastest growing cities in the country. Congestion and poor journey time reliability are a constraint to both local businesses and tourism and the visitor economy.</p> <p>One of the Scheme objectives is to support economic growth by reducing congestion related delay, improving journey time reliability and increasing the overall capacity of the A47. This will help contribute to sustainable</p>

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<p>           dwellings eventually           <ul style="list-style-type: none"> <li>• Easton/Costessey: 1,000 dwellings</li> <li>• Cringleford: 1,200 dwellings</li> <li>• Hethersett: 1,000 dwellings</li> <li>• Long Stratton: 1,800 dwellings</li> <li>• Wymondham: 2,200 dwellings</li> <li>• Broadland smaller sites in the NPA: 2,000 dwellings</li> <li>• South Norfolk smaller sites in the NPA and possible additions to named growth locations: 1,800 dwellings.</li> </ul> <p>Allocations to deliver the smaller sites in Broadland and South Norfolk will be made in accordance with the settlement hierarchy and local environmental and servicing considerations.</p> <p>All the numbers above show the minimum number of dwellings to be delivered in each location.</p> <p>Transport infrastructure required to implement NATS, deliver growth and support the local economy will include:</p> <ul style="list-style-type: none"> <li>• construction of the NDR to provide strategic access, significantly improve quality of life and environmental conditions in the northern suburbs and nearby villages, and provide capacity for comprehensive improvements for buses, cycling and walking as well as facilitating economic development</li> <li>• significant improvement to the bus, cycling and walking network, including Bus Rapid Transit on key routes in the Norwich area linking major growth locations, strategic employment areas and the city centre</li> <li>• enhancing the Norwich Park &amp; Ride system</li> <li>• new rail halts at Broadland Business Park and Rackheath (innovative new services will be investigated on the Wymondham – Norwich – Wroxham axis)</li> <li>• junction improvements on the A47 Norwich Southern Bypass</li> <li>• a Long Stratton Bypass</li> <li>• parking restraint in areas with good standards of public transport accessibility especially in and around the city centre.</li> </ul> </p>	<p>economic growth by supporting employment and residential development opportunities.</p> <p>The Economic Appraisal in Section 5 of the Case for the Scheme (<b>APP-120</b>) details that the Scheme is forecast to generate wider economic impacts and journey time reliability benefits. The value for the total wider economic impacts is approximately £40.6 million, while for journey time reliability it is £3.3 million. Inclusion of journey time reliability benefits and wider economic impacts gives a Benefit to Cost Ratio of 3.3 which represents “High” Value for Money.</p>

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<p>Opportunities will be sought to enhance green infrastructure throughout the area, with particular emphasis on priority areas. Employment development at strategic locations will include:</p> <ul style="list-style-type: none"> <li>• significant expansion of office, retail and leisure provision in the city centre. Land will be identified to deliver a net increase at least 100,000m<sup>2</sup> of new office floorspace</li> <li>• significant expansion of health, higher education and, in particular, science park activity at the University of East Anglia/ Norwich Research Park. A first phase of around 55ha will provide for uses limited to those appropriate for a science park (principally use class B1(b)) with further phases dependent on the achievement of this vision. In view of the specific nature of the employment sought in this location, including the need to dovetail with the aims of significant and diverse existing institutions, detailed proposals will be developed through the preparation of development plan documents</li> <li>• a new business park of around 30ha associated with the Airport and focussed on uses benefiting from an airport location • an extension to Broadland Business Park of around 25ha for general employment uses</li> <li>• consolidation of activity at Longwater through intensification and completion of the existing allocation</li> <li>• new general employment opportunities at Wymondham including a new allocation of around 15ha</li> <li>• expansion of activity at Hethel including a technology park of around 20ha managed to focus on advanced engineering and the growth of technology capabilities</li> <li>• new employment development to serve local needs of major growth locations including around 25ha of new employment land at Rackheath.</li> </ul> <p>Contributes to spatial planning objectives 1, 2, 4, 6 and 7.</p>	
<p><b>Policy 10: Locations for major new or expanded communities in the Norwich Policy Area</b>                      Major growth in the Old Catton, Sprowston, Rackheath, Thorpe St Andrew growth triangle, and at Cringleford, Easton/Costessey, Hethersett, Long Stratton and Wymondham will be masterplanned as attractive, well serviced,</p>	<p>In addition to its inclusion in the Department of Transport's Road Investment Strategy 2 (RIS2) for 2020-2025, there is much support for improvements to the A47 at a county level within the Norfolk County Council Local Transport Plan. Improvements to the SRN are considered to be key priorities for the delivery of economic growth in Norfolk and the East of England as a whole.</p>

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<p>integrated, mixed use development using a recognised design process giving local people an opportunity to shape development. Development will achieve the highest possible standards of design and aim to address current service and infrastructure deficiencies to benefit existing communities. In addition each major development location will:</p> <ul style="list-style-type: none"> <li>• deliver healthy, sustainable communities with locally distinctive design and high quality green infrastructure within the development and contributing to the surrounding network</li> <li>• provide for a wide range of housing need including giving serious consideration to the provision of sites for Gypsies and Travellers</li> <li>• seek to achieve a high level of self containment through the provision of services to support the new development while integrating well with neighbouring communities</li> <li>• achieve a major shift away from car dependency and be designed around walking and cycling for local journeys and public transport for longer journeys</li> <li>• include Sustainable Drainage Systems (SuDS), on site or nearby renewable energy generation, for example largescale wind turbines/farms and biomass fuelled Combined Heat Power and Cooling (CHPC), and water saving technologies</li> <li>• include new or expanded education provision addressing the needs of the 0-19 age range, local retail and other services, community, police and recreational facilities, smallscale employment opportunities and primary healthcare facilities</li> <li>• ensure high quality telecommunications and adequate energy supply and sewerage infrastructure</li> </ul> <p>The developers of major Strategic Growth Locations will be required to ensure there is an ongoing commitment to support community development throughout the period until the development is completed.</p> <p><b>Old Catton, Sprowston, Rackheath, Thorpe St Andrew growth triangle</b>                      This location will deliver an urban extension extending on both sides of the Northern Distributor Road. Complete delivery of the extension is dependent on implementation of the Northern Distributor Road. However, there is scope for partial delivery, the precise extent of which will be assessed through the Area</p>	<p>Additional capacity on the A47 between Blofield and Burlingham will facilitate proposals for major new or expanded communities in the Norwich Policy Area.</p> <p>See also above comments relating to Policy 9.</p>

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<p>Action Plan. The structure of the local geography suggests that this new community will take the form of a series of inter-related new villages or quarters and will include:</p> <ul style="list-style-type: none"> <li>• at least 7,000 dwellings (rising to a total of at least 10,000 dwellings after 2026)</li> <li>• a district centre based around an accessible 'high street' and including a new library, education and health facilities. This may be provided by building on the proposed centre at Blue Boar Lane or by the creation of a second district centre elsewhere in the Growth Triangle. The development will also require new local centres</li> <li>• new pre-school provision and up to six new primary schools plus a new secondary school with an initial phase to open as Policy 10: Locations for major new or expanded communities in the Norwich Policy Area Please open &lt; 06 Policies for places Norwich Area Transportation Strategy – proposed implementation plan Joint Core Strategy for Broadland, Norwich and South Norfolk 63 early as possible. To facilitate early provision the early phases of development will concentrate on family housing</li> <li>• new employment allocations for local needs including expansion of the Rackheath employment area • retention of existing important green spaces and significant levels of heathland recreation to provide stepping stones to link Mousehold Heath to the surrounding countryside. Building design including, for example, appropriate use of 'green roofs' will help provide linkage between green spaces</li> <li>• restoring and conserving historic parkland and important woodland. A significant area north of Rackheath will be provided as green space to act as an ecological buffer zone and ensure no significant adverse impacts on the Broads SAC, Broadland SPA and Broadland Ramsar site</li> <li>• Bus Rapid Transit to the city centre, possibly via Salhouse Road and Gurney Road, and a choice of safe and direct cycle routes to the centre</li> <li>• safe and direct cycle and pedestrian routes, and orbital bus services, to Broadland Business Park, Rackheath employment area, airport employment areas and to the surrounding countryside</li> <li>• new rail halts at Rackheath and Broadland Business Park</li> <li>• permeability and community integration across the Northern Distributor</li> </ul>	

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<p>Road and with existing communities. This will be crucial for the successful development of the area</p> <ul style="list-style-type: none"> <li>• a new household waste recycling centre</li> </ul> <p>A single coordinated approach will be required across the whole area. This will be provided through the preparation of an Area Action Plan (or any future equivalent process). More detailed masterplanning will be required for each quarter.</p> <p><b>Wymondham</b>            This location is dependent on expanded capacity of the A11/A47 Thickthorn junction and will deliver expansion of the town to include:</p> <ul style="list-style-type: none"> <li>• at least 2,200 dwellings located in a number of sites providing easy access to local jobs, services and facilities and the town centre, whilst maintaining the strategic gap to the north and north-east and the historic setting of the town and abbey</li> <li>• expansion of the town centre of a quality that will retain and enhance the distinctive character of the existing historic centre</li> <li>• extensive levels of green infrastructure to create a 'Ketts Country' pastoral landscape of grass, wood, hedgerow and wetland habitat. This will also strengthen the importance and role of the Tiffey valley, 06 Policies for places Rackheath Joint Core Strategy for Broadland, Norwich and South Norfolk 64 the landscape setting of the town and strategic gaps, particularly towards Hethersett</li> <li>• enhanced bus services to the city centre with potential for Bus Rapid Transit also serving Hethersett and/or Cringleford, and improvements to maximise the use of rail connections</li> <li>• safe and direct cycle and pedestrian routes linking key locations in and around Wymondham including new residential developments, the town centre, the railway station and Gateway 11 business park, and enhanced longer distance cycle access to Hethersett and Norwich Research Park</li> <li>• enhanced public transport and cycle links to employment expansion at Hethel</li> <li>• new pre-school provision and a new primary school. Secondary education provision remains to be resolved but may require the</li> </ul>	



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<p>relocation of the existing high school to a new site</p> <ul style="list-style-type: none"> <li>expanded household waste recycling facility</li> </ul> <p>Detailed proposals will be developed through the preparation of an Area Action Plan.</p> <p><b>Hethersett</b>                      This location is dependent on expanded capacity of the A11/A47 Thickthorn junction and will deliver modest growth to the existing village to include:</p> <ul style="list-style-type: none"> <li>at least 1,000 dwellings located to maintain the strategic gap to the north and south-west</li> <li>expansion of the existing village services</li> <li>education provision remains to be resolved but may require the relocation of the existing junior school and/or high school to new sites plus additional pre-school and primary provision</li> <li>enhanced bus services to the city centre with potential for Bus Rapid Transit also serving Wymondham and/or Cringleford</li> <li>safe and direct cycle and pedestrian routes around Hethersett and enhanced longer distance cycle access to the city centre, Hethel, Wymondham, Norwich Research Park and the hospital</li> <li>Green infrastructure to provide enhanced public access to the countryside</li> </ul> <p>Detailed proposals will be developed through the preparation of the South Norfolk Site Specific Policies Development Plan Document.</p> <p><b>Cringleford</b>                      This location is dependent on expanded capacity of the A11/A47 Thickthorn junction and will deliver modest growth to the existing village to include:</p> <ul style="list-style-type: none"> <li>at least 1,200 dwellings</li> <li>expansion of the existing services nearby</li> <li>new pre-school provision and a primary school within the new development. Secondary education is reliant on the emerging solution at Hethersett</li> <li>enhanced bus services to the city centre with potential for bus rapid</li> </ul>	

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<p>transit also serving Wymondham, Hethersett and Norwich Research Park</p> <ul style="list-style-type: none"> <li>• safe and direct cycle routes to the city centre, Hethel, Norwich Research Park and the hospital 06 Policies for places Wymondham Joint Core Strategy for Broadland, Norwich and South Norfolk 65</li> <li>• Green infrastructure to provide enhanced public access to the countryside and the Yare valley.</li> </ul> <p>Detailed proposals will be developed through the preparation of the South Norfolk Site Specific Policies Development Plan Document.</p> <p><b>Long Stratton</b>            It is intended to ensure the delivery of a Long Stratton bypass, and will include:</p> <ul style="list-style-type: none"> <li>• at least 1,800 dwellings, the full level and phasing of growth at this location is dependent on overcoming sewerage constraints</li> <li>• improvements to the town centre including traffic management, environmental enhancement and expanded facilities</li> <li>• secondary school provision will be provided in, or by the expansion of, the existing school</li> <li>• investment in strategic green infrastructure corridor reflecting and conserving the ancient landscape to the east of the village</li> <li>• transport improvements including bus priority at the A140/A47 junction and an enhanced route to the city centre</li> <li>• safe and direct cycle and pedestrian access to the town centre and employment locations</li> <li>• additional local employment opportunities.</li> </ul> <p>Detailed proposals will be developed through the preparation of an Area Action Plan.</p> <p><b>Easton/Costessey</b>            This location is dependent on capacity expansion of the A47 Longwater junction and will provide:</p> <ul style="list-style-type: none"> <li>• at least 1,000 dwellings</li> <li>• enhanced local services. Significant growth at Easton will need to</li> </ul>	

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<p>provide an enhanced village centre</p> <ul style="list-style-type: none"> <li>• enhanced public access to the Yare valley including creation of a country park at Bawburgh lakes</li> <li>• Bus Rapid Transit to the city centre via Dereham Road</li> <li>• enhanced bus and cycle links to city centre, Easton College, Norwich Research Park and to secondary schools</li> <li>• safe and direct cycle and pedestrian access to Longwater employment and retail area and the Bowthorpe employment area</li> <li>• secondary education provision remains to be resolved, this may include the relocation or expansion of the existing high school.</li> </ul> <p>Detailed proposals will be developed through the preparation of the South Norfolk Site Specific Policies Development Plan Document.</p>	
<p><b>Policy 20: Implementation</b>                      A coordinated approach will be taken to the timely provision and ongoing maintenance of infrastructure, services and facilities to support development. Provision will be achieved through:</p> <ul style="list-style-type: none"> <li>• contributions towards strategic infrastructure from all residential and commercial development, made through the introduction of an area wide Community Infrastructure Levy (CIL) plus appropriate Section 106 contributions for site specific needs. Until such time as a local CIL is introduced all contributions will be made through Section 106 in line with current legislation and national policy, including the pooling of contributions</li> <li>• maximising mainstream government funding sources including the Homes and Communities Agency, Local Transport Plan, Growth Point Funding, Regional Funding Allocation and Community Infrastructure Funding and other new funding streams, including European funding sources</li> <li>• coordination with the investment programmes of other public bodies e.g. National Health Service</li> <li>• capital investment by utilities companies through their asset management plans to their regulator which identify the capital investment required</li> <li>• innovative approaches to capital investment based on forecast future</li> </ul>	<p>As previously stated, the Scheme is a committed development, included in the Department of Transport's Road Investment Strategy 2 (RIS2) for 2020-2025 and will be undertaken by Highways England. As set out in the Funding Statement (<b>APP-020</b>) none of the costs will be funded from developer contributions.</p> <p>The Scheme is essential to secure appropriate transport infrastructure. The policy allows for LPA and the County Council to make use of their legal powers to facilitate compulsory purchase for strategically significant development.</p>

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<p>revenue</p> <ul style="list-style-type: none"> <li>• consideration of other potential funding mechanisms.</li> </ul> <p>Local Planning Authorities and the County Council will make use, where necessary, of their legal powers to bring about strategically significant development, including compulsory purchase.</p> <p>Future maintenance of the infrastructure provided will be achieved either through adoption by a public body with maintenance payments, where appropriate, or other secure arrangements such as the establishment of a local infrastructure management body.</p> <p>Implementation of this Joint Core Strategy will depend on the coordinated activities of a number of agencies. It is essential that necessary infrastructure is provided in a timely manner related to the needs of new development. The precise timing and phasing of infrastructure will be managed through reviews of the delivery programme, but the underlying principles will be to provide attractive, sustainable communities, to avoid placing an undue strain on existing services and to ensure that residents of new developments do not form patterns of behaviour which ultimately threaten the viability of new services.</p> <p>Infrastructure that is essential to secure sustainable development will include:</p> <ul style="list-style-type: none"> <li>• appropriate transport infrastructure including the implementation of NATS and the construction of the NDR and improved public transport</li> <li>• affordable or supported housing</li> <li>• social infrastructure, including education, healthcare, police and emergency services and community facilities</li> <li>• local and renewable energy generation</li> <li>• water conservation measures</li> <li>• sustainable drainage systems (SuDS)</li> <li>• strategic sewers</li> <li>• open space and green infrastructure, including habitat creation, pedestrian and cycle links, allotments, recreation facilities, parks, trees, hedgerows, woodland and landscaping</li> <li>• utilities, including waste management/ recycling/composting facilities</li> <li>• street furniture</li> <li>• public art.</li> </ul>	

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<p>The developers of strategic growth areas will be required to enter into an ongoing commitment to support community development to bring about a genuinely sustainable community including fostering the growth of community and voluntary organisations.</p> <p>Contributes to spatial planning objectives 2-12.</p>	
<p><b>Policy 21: Implementation of proposals in the Broadlands part of the Norwich Policy Area</b>            When considering development proposals in their part of the Norwich Policy Area Broadland District Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. It will always work proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.</p> <p>Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise.</p> <p>Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the Council will grant permission unless material considerations indicate otherwise – taking into account whether:</p> <ul style="list-style-type: none"> <li>• Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or</li> <li>• Specific policies in that Framework indicate that development should be restricted.</li> </ul>	<p>Policy 6 of the Joint Core Strategy seeks to improve the transportation system in order to develop the role of Norwich as a Regional Transport Node, particularly through the implementation of the Norwich Area Transportation Strategy (2003) and will improve access to rural areas. One of the ways this will be achieved is “<i>by promoting improvements to the A11 and A47</i>”. The policy recognises that supported strategic improvements to aid delivery and economic success include A47 improvements to reduce the significant stretches that remain single carriageway. The principle of the Scheme therefore accords with policies in the Local Plan.</p> <p>The various chapters of the ES (<b>APP-043</b> to <b>APP-053</b>) set out the environmental issues, potential impacts and mitigation.</p>
<p><b><i>The Broadland District Council Development Management DPD 2015</i></b></p>	
<p><b>Policy GC1 – Presumption in favour of sustainable development</b>            When considering development proposals in their part of the Norwich Policy Area Broadland District Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National</p>	<p>Section 6 of the Case for the Scheme (<b>APP-120</b>) provides a summary of evidence that the Scheme is compliant with local and national planning policy in economic, social and environmental terms. In part, the Case for the Scheme is advised by the ES (<b>APP-039</b> to <b>APP-053</b>) which contains a full</p>

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Policy	Reasons for Conformity
<p>Planning Policy Framework. It will always work proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.</p> <p>Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise.</p> <p>Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the Council will grant permission unless material considerations indicate otherwise – taking into account whether:</p> <ul style="list-style-type: none"> <li>i. Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or</li> <li>ii. Specific policies in that Framework indicate that development should be restricted.</li> </ul>	<p>assessment of the likely impacts of the Scheme and where they may be avoided, reduced or mitigated. Mitigation measures take account of relevant policy and guidance, in particular the policy focus on promoting sustainable development. In this regard opportunities for environmental and social benefits have been considered as part of the EIA process.</p> <p>Mitigation measures are also set out in the EMP (<b>APP-124</b>) (secured through Requirement 4 to the draft DCO) including why they are required, who is responsible for delivery and detailing ongoing reporting criteria.</p>
<p><b>Policy GC4 – Design</b></p> <p>Development will be expected to achieve a high standard of design and avoid any significant detrimental impact. Schemes which are of an innovative nature or which reduce reliance on centralised, non-renewable energy sources will be particularly encouraged proposals should pay adequate regard to:</p> <ul style="list-style-type: none"> <li>i. The environment, character and appearance of an area;</li> <li>ii. Reinforcing local distinctiveness through careful consideration of the treatment of space throughout the development, the appearance of new development, the scale of new development and landscaping;</li> <li>iii. Meeting the reasonable amenity needs of all potential future occupiers;</li> <li>iv. Considering the impact upon the amenity of existing properties;</li> <li>v. Making efficient use of land and resources;</li> <li>vi. Being accessible to all via sustainable means including public transport;</li> </ul>	<p>The NPS NN states that “<i>applicants should include design as an integral consideration from the outset of a proposal. Visual appearance should be a key factor in considering the design of new infrastructure, as well as functionality, fitness for purpose, sustainability and cost</i>”.</p> <p>Applying “<i>good design</i>” to national network projects should therefore produce sustainable infrastructure sensitive to place; efficient in the use of natural resources and energy used in their construction; and matched by an appearance that demonstrates good aesthetics as far as possible.</p> <p>The design principles of the Scheme are considered in the Scheme Design Report Chapter 3 Design Principles, Objectives and Constraints of (<b>APP-123</b>). This chapter explains that there are 10 principles of good design which should be implemented by a scheme, as identified within Highways England’s Strategic Design Panel Progress Report 3 ‘Good road design’. These are:</p>

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Policy	Reasons for Conformity
<p>vii. Creating safe environments addressing crime prevention and community safety;</p> <p>viii. Incorporating appropriate infrastructure linking to the surrounding area;</p> <p>ix. The creation of sustainable, inclusive and mixed communities; And</p> <p>x. Minimising resource and energy consumption and how it is located and designed to withstand the longer term impacts of climate change.</p>	<ul style="list-style-type: none"> <li>• makes roads safe and useful</li> <li>• is inclusive</li> <li>• makes roads understandable</li> <li>• fills in context</li> <li>• is restrained</li> <li>• is thorough</li> <li>• is environmentally sustainable</li> <li>• is innovative</li> <li>• is long lasting</li> <li>• is a collaborative process</li> </ul> <p>The Chapter goes on to describe how the Scheme considers each of the design principles and how each principle has been applied within the design of the Scheme.</p>
<p><b>Policy EN1 – Biodiversity and Habitats</b>                      Development proposals will be expected to protect and enhance that biodiversity of the district, avoid fragmentation of habitats, and support the delivery of a co-ordinated green infrastructure network throughout the district.</p> <p>Where harmful impacts may occur, it should be adequately demonstrated:</p> <ul style="list-style-type: none"> <li>i. The development cannot be located where it would cause less or no harm; and</li> <li>ii. That adequate mitigation is incorporated, including specific mitigation requirements to address impacts upon international wildlife sites (Natura 2000 sites); and</li> <li>iii. That the benefits of the development clearly outweigh the impacts.</li> </ul>	<p>ES Chapter 8 Biodiversity (<b>APP-046</b>) sets out the predicted effects on internationally, nationally and locally designated sites and other habitats and species, the ecological mitigation measures and the predicted significance of residual effects on biodiversity resources following the implementation of committed mitigation.</p> <p>After mitigation residual effects to bat roosts will be neutral. Disturbance from noise, vibration and light spill is not predicted to cause residual effects. Mortality through traffic collisions is predicted to be less likely once remediated roadside trees mature. However, until an agreement has been reached, as a result of pending consultation, the effects of the Scheme upon Barbastelle bats remains of Moderate Adverse significance.</p> <p>The Masterplan (<b>APP-118</b>) has been developed to take into account opportunities to conserve and enhance biodiversity.</p> <p>Paragraph 1.2 of the NPS NN acknowledges that some schemes will unavoidably result in limited adverse impacts but that these should not outweigh the positive benefits. The residual impacts of this Scheme, following mitigation, do not outweigh its positive overall benefits.</p> <p>No significant effects have been found in relation to European Sites and</p>

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<p><b>Policy EN2 – Landscape</b>            In order to protect the character of the area, development proposals should have regard to the Landscape Character Assessment SPD and, in particular, consider any impact upon as well as seek to protect and enhance where appropriate:</p> <ul style="list-style-type: none"> <li>i. Gaps between settlements;</li> <li>ii. Visually sensitive skylines, hillsides and valley sides and important views including the setting of the Broads Area;</li> <li>iii. Nocturnal character;</li> <li>iv. Conservation Areas;</li> <li>v. Scheduled Ancient Monuments; and</li> <li>vi. Historic Parks and Gardens; and</li> <li>vii. Green spaces including natural and semi-natural features as well as geological/geomorphological features which make a significant contribution towards defining the character of an area.</li> </ul>	<p>therefore an Appropriate Assessment is not required. Decoy Carr SSSI is unlikely to be impacted by the Scheme either directly or indirectly and there are no National Nature Reserves in the study area. No ancient woodland is present within the study area and no aged or veteran trees have been identified by the assessment.</p> <p>ES Chapter 7 Landscape and Visual (<b>APP-045</b>) presents the findings of the Landscape and Visual Impact Assessment (LVIA) including baseline conditions, the potential impacts of the Scheme upon surrounding landscape and visual receptors and identification of appropriate mitigation as required by Policy EN2. The assessment was carried out in accordance with the Design Manual for Roads and Bridges (DMRB), LA107 Landscape and Visual Effects, and the Guidelines for Landscape and Visual Impact Assessment. The LVIA also takes account of local development plan policies in respect of landscape and visual effects.</p> <p>There are no statutory or local landscape designations associated with the Scheme study area.</p> <p>Five landscape character areas have been identified for the purposes of assessment as an outcome of review of published landscape character studies and site observation (see ES Appendix 7.4 Landscape Character Areas and ES Figure 7.3 Landscape Character) (<b>APP-082</b>).</p> <p>The LVIA considers both construction and operational phase impacts and includes an assessment of likely significant effects on key visual receptors, representative viewpoints, landscape character areas, residential properties, PRoW and community facilities. It also considers the effect on tranquility and night-time effects. Effects are considered over a 15-year period of operation.</p> <p>As required by DMRB LA107 Landscape and Visual Effects the assessment concludes, in assessing the overall effects that the Scheme would not result in a significant residual effect on landscape and visual amenity.</p> <p>The EMP (<b>APP-124</b>) includes the REAC (Table 3.1) which identifies the mitigation identified within the ES to address the potential significant</p>



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	<p>environmental effects of the Scheme. During construction, measures within the REAC include keeping a tidy site, avoiding stockpiling, protecting retained vegetation, minimising routes of construction vehicles, reducing light disturbance for sensitive receptors and constraining working hours.</p> <p>Landscaping works include native tree and hedgerow planting; ensuring grasses and plants require minimum future maintenance; preservation of views of St Andrew's Church spire; ensuring an appropriate diversity in species in planting plans; creating attenuation ponds for landscape and ecological enhancement and smooth profiling of earth on cuttings and embankments (see ES Chapter 7 Landscape and Visual Section 7.10 (<b>APP-045</b>)).</p>
<p><b>Policy EN3 - Green Infrastructure</b>            All development will be expected to maximise opportunities for the creation of a well managed network of wildlife habitats.</p> <p>Residential development consisting of five dwellings or more will be expected to provide at least four hectares of informal open space per 1000 population and at least nought .16 hectares of allotments per 1000 population.</p> <p>Development will also be expected to make adequate arrangements for the management and maintenance of green infrastructure.</p>	<p>ES Chapter 8: Biodiversity (<b>APP-046</b>) confirms that the Scheme's mitigation and landscape design incorporates linear and connective habitat throughout to maintain and, where possible, improve green infrastructure. It is comprised of extensive replacement woodland, hedgerow and grassland planting throughout, which will also contribute to the physical separation of the existing and proposed A47, for the purposes of habitat connectivity for birds, mammals and invertebrates. This will include tall trees for bat hops and habitat piles. These measures are shown on the Masterplan (<b>TR010040/APP/6.8 rev 1</b>) is secured through Requirement 5.</p> <p>ES Chapter 12 Population and Human Health (<b>APP-050</b>) identifies the existing and proposed walking, cycling and horse riding routes within the study area that will be provided to provide improved connectivity between existing settlements.</p> <p>The new Public Right of Way (PRoW) footpath, to the south of the new A47 mainline will connect with the network of permissive route north of Lingwood.</p>
<p><b>Policy EN4 - Pollution</b>            Development proposals will be expected to include an assessment of the extent of potential pollution. Where pollution may be an issue, adequate mitigation measures will be required. Development will only be permitted where there will be no significant adverse impact upon amenity, human health or the natural environment.</p>	<p>ES Chapter 13 Road Drainage and the Water Environment (<b>APP-051</b>) considers the potential impacts on surface water, groundwater and flood risk receptors prior to mitigation from the construction and operation of the Scheme. The Scheme is not expected to give rise to significant residual effects during the construction or operational phases with the adoption of mitigation.</p>

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	<p>The Water Framework Directive Assessment (ES Chapter 13 (<b>TR010040/APP/6.1 rev1</b>)) indicates that the construction and operation of the Scheme will not cause deterioration in the status of receiving water bodies nor will it impact on the ability of the water bodies to achieve their objectives and standards under the Water Framework Directive. All potential effects on groundwater and surface water waste receptors during operation of the Scheme are predicted to be neutral.</p> <p>Mitigation and enhancement measures in relation to biodiversity, noise, air quality and light are set out in the Record of Environmental Actions and Commitments (REAC) which is included in the EMP (<b>TR010040/APP/7.7 rev2</b>).</p> <p>There have been no significant air quality, waste or water and drainage pollution effects identified. There will be beneficial and some adverse noise effects.</p>
<p><b>Policy TS1 - Protection of land for transport improvements</b>            Land required for the improvement of the transport network will be safeguarded.</p>	<p>Policy 6 of the Joint Core Strategy seeks to improve the transportation system in order to develop the role of Norwich as a Regional Transport Node, particularly through the implementation of the Norwich Area Transportation Strategy (2003) and will improve access to rural areas. One of the ways this will be achieved is “<i>by promoting improvements to the A11 and A47</i>”. The policy recognises that supported strategic improvements to aid delivery and economic success include A47 improvements to reduce the significant stretches that remain single carriageway.</p> <p>The Broadland Development Plan actively supports dualling improvements by restricting the development of land adjacent to the single carriageway sections so that it is available for potential future improvements by the Applicant. The single lane carriageway between Blofield and Acle is specifically identified as requiring improvement to dual status to support local demand and growth aspirations on the corridor.</p>
<p><b>Policy TS2 - Travel Plans and Transport Assessments</b>            In the case of major development, or where a particular need is identified, a Transport Assessment and/or Travel Plan will be required. Developers will need to include proposals to deal with any consequences of their development in terms of maximising access by foot, cycle and public transport and the means</p>	<p>The Transport Assessment (<b>APP-122</b>) demonstrates that the Scheme will upgrade part of the existing A47 to a modern higher performing standard which will enable significant increases in traffic volumes using the A47 through increased capacity and a reduction in delays. These improvements will make the local area, and areas to the east, more attractive for</p>

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Policy	Reasons for Conformity
by which this will be secured in perpetuity.	<p>businesses to locate and help in promoting a competitive local economy. The dualling will also improve safety and reduce accidents on the route.</p> <p>A travel plan has not been prepared to support the Application due to the nature of the Scheme not being a generator of additional traffic in itself, rather it is re-distributing existing and future traffic flows.</p>
<p><b>Policy TS3 - Highway Safety</b>            Development will not be permitted where it would result in any significant adverse impact upon the satisfactory functioning or safety of the highway network.</p>	<p>The single carriageway section of A47 between Blofield and North Burlingham lies between two dual carriageway sections of the A47, has a poor safety record and acts as a bottleneck, resulting in congestion and leading to longer and unreliable journey times.</p> <p>The Scheme will improve road safety for all road users by designing to modern highway standards appropriate for a major A road. The Scheme provides an upgraded dual carriageway alignment and an upgraded A47/B1140 interchange junction. The existing A47 will be downgraded to local road status and the provision of new cycling and walking infrastructure will provide safety improvements for walking, cycling and other vulnerable users.</p> <p>As set out in the Transport Assessment (<b>TR010040/APP/7.3 rev1</b>) the Scheme will save 190 accidents when compared to the 'without Scheme' scenario. This reduction in accidents is forecast to reduce the number of KSIs by 29 over a 60-year period.</p> <p>Once the Scheme is complete a road safety audit will be updated to assess the safety and operational aspects of the Scheme. If any additional mitigation is then required, it will follow on from this assessment.</p>
<p><b>Policy CSU5 - Surface water drainage</b>            Mitigation measures to deal with surface water arising from development proposals should be incorporated to minimise the risk of flooding on the development site without increasing flood risk elsewhere.</p> <p>In particular, within the Critical Drainage Catchments and other areas at significant risk of flooding as identified by the Lead Local Flood Authority, all development proposals including involving new buildings, extensions and additional areas of hard surfacing should ensure that adequate and appropriate</p>	<p>ES Appendix 13.2, the Drainage Strategy Report (<b>APP-110</b>) demonstrates how the volumes and peak flow rates would not be increased. It also details the SuDS components that have been incorporated into the design.</p> <p>ES Appendix 13.1, the FRA (<b>APP-109</b>) shows that the Scheme will result in an increase in areas of hardstanding which would, if not mitigated, cause a potential increase in flood risk to surrounding areas. The road drainage is proposed to drain at source via the road drainage network using soakaways and an infiltration basin, designed for a 1 in 10-year storm with a 20%</p>

ExA Question 1.1.14 – Policy Compliance with Broadland Development Plan	
Policy	Reasons for Conformity
<p>consideration has been given to mitigating surface water flood risk.</p> <p>Developers will be required to show that the proposed development would:</p> <ol style="list-style-type: none"> <li>i. not increase the vulnerability of the site, or the wider catchment, to flooding from surface water run-off from existing or predicted water flows; and</li> <li>ii. wherever practicable, have a positive impact on the risk of surface water flooding in the wider area</li> <li>iii.</li> <li>iv. Development must, as appropriate, incorporate mitigation measures to reduce surface water run-off, manage surface water flood risk to the development itself and to others, maximise the use of permeable materials to increase infiltration capacity, incorporate on site water storage and make use of green roofs and walls wherever reasonably practicable.</li> </ol>	<p>allowance for climate change and a 1 in 100-year storm with a 40% allowance for climate change respectively. Dry culverts would also be provided, where required, to maintain continuity of surface water flooding flow pathways and prevent potential ponding of water adjacent to the carriageway which may pose additional flood risk.</p> <p>The Scheme is classified as 'essential infrastructure' and is located in Flood Zone 1. The NPPF states that 'essential infrastructure' is appropriate development in Flood Zone 1. The Scheme is therefore deemed to pass the Sequential Test and no Exception Test is required (see ES Appendix 13.1, the FRA (<b>APP-109</b>)).</p>
<b>The Broadland District Council Site Allocations DPD 2016</b>	
<i>No applicable policies</i>	
<b>The Broadland District Council Growth Triangle Area Action Plan 2016</b>	
<i>No applicable policies</i>	
<b>The Blofield Neighbourhood Plan 2016</b>	
<p><b>Policy ENV2: Soft site boundaries and trees</b></p> <p>New development site boundary edges should be soft, using trees and native hedgerows where adjacent to the countryside, giving a rural edge.</p> <p>Development proposals should seek to retain mature or significant trees, groups of trees or woodland on site. Where removal of a tree(s) of recognised importance is proposed, a replacement of similar amenity value should be provided on site.</p>	<p>Landscaping works will include native tree and hedgerow planting; planting of grasses and plants requiring minimum future maintenance; preservation of views of St Andrew's Church spire; ensuring an appropriate diversity in species in planting plans; creating attenuation ponds for landscape and ecological enhancement and smooth profiling of earth on cuttings and embankments (see ES Chapter 7 Landscape and Visual (<b>APP-045</b>) and the Masterplan (<b>TR010040/APP/6.8 rev1</b>)).</p> <p>Habitat loss and severance from the larger footprint of the new road will be compensated for as each phase of the road is completed with increased and enhanced tree planting as a remediation measure. At crossing point locations extra heavy standard trees will be planted, at least 4.25m in height.</p> <p>No ancient woodland is present within the study area and no aged or veteran trees have been identified by the assessment.</p>

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Policy	Reasons for Conformity
Policy ENV3: Drainage	<p>Once tree and hedgerow planting became established, the visibility of the Scheme and extent of associated landscape features would revert to a state comparable to that of the existing situation.</p> <p>The assessment concludes that the Scheme would not result in a significant residual effect on landscape and visual amenity.</p>
<p>Reflecting the Local Plan, all developments should take advantage of modern drainage methods to prevent and where necessary alleviate localised flooding. Future development should not cause or contribute to the problem of flooding or drainage issues, or pollution.</p> <p>Identified localised flooding areas include, but are not limited to:</p> <ul style="list-style-type: none"> <li>a. The junction of Woodbastwick Road with Mill Road and Francis Lane , Blofield Heath.</li> <li>b. Bourton Road, Blofield Heath.</li> <li>c. Yarmouth Road, by the King's Head Public House, Blofield.</li> <li>d. The Chase, Blofield.</li> <li>e. The junction of Hall Road with Woodbastwick Road.</li> <li>f. Waterlow, Blofield.</li> </ul> <p>Surface water drainage ponds associated with any planned development should appear natural and be able to be colonised by the local fauna and flora whilst still maintaining their design purpose.</p> <p>Permeable materials should be used on freestanding areas, such as parking bays, vehicle laybys, and where appropriate, new play areas.</p>	<p>ES Appendix 13.2, the Drainage Strategy Report (<b>APP-110</b>) demonstrates how the volumes and peak flow rates would not be increased. It also details the SuDS components that have been incorporated into the design.</p> <p>ES Appendix 13.1, the FRA (<b>APP-109</b>) shows that the Scheme will unavoidably result in an increase in areas of hardstanding which would, if not mitigated, cause a potential increase in flood risk to surrounding areas. The road drainage is proposed to drain at source via the road drainage network using soakaways and an infiltration basin, designed for a 1 in 10-year storm with a 20% allowance for climate change and a 1 in 100-year storm with a 40% allowance for climate change respectively. Dry culverts would also be provided, where required, to maintain continuity of surface water flooding flow pathways and prevent potential ponding of water adjacent to the carriageway which may pose additional flood risk.</p> <p>The Scheme is classified as 'essential infrastructure' and is located in Flood Zone 1. The NPPF states that 'essential infrastructure' is appropriate development in Flood Zone 1. The Scheme is therefore deemed to pass the Sequential Test and no Exception Test is required (see ES Appendix 13.1, the FRA (<b>APP-109</b>)).</p>
<p><b>Policy ENV4: Agricultural Land</b></p> <p>In accordance with the National Planning Policy Framework (paragraph 112), where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be used before the best and most versatile land (Grades 1, 2 and 3a of the Agricultural Land Classification). Grade 1 agricultural land should be avoided for any further development where</p>	<p>The provisional Agricultural Land Classification (ALC) shows the soils below the Scheme are predominantly Grade 1, with minor areas near the Blofield overbridge designated as Grade 2 (ES Chapter 9 Geology and Soils (<b>APP-047</b>)).</p>

ExA Question 1.1.14 – Policy Compliance with Broadland Development Plan	
Policy	Reasons for Conformity
possible.	<p>During construction the Scheme will result in the approximate temporary land take of 40.16 ha of agricultural land with potential for compaction or deterioration of the adjacent soil resource. Permanent land take will be 47.4ha. At operational stage there will be no significant effects on geology and soils.</p> <p>Given the surrounding lands are of similarly high agricultural quality, the overall effect on agricultural soils of the considered alternatives would be very similar for other offline route options. The key design principle has been to minimise effects on soils is to ensure that the footprint of the Scheme is reduced as much as practicable. Materials will be reused within or outwith the Scheme in line with best practice. A Materials Management Plan and Soil Management will be put in place to ensure these actions take place.</p> <p>Paragraph 1.2 of the NPS NN acknowledges that some schemes will unavoidably result in limited adverse impacts but that these should not outweigh the positive benefits. The residual impacts of this Scheme, following mitigation, do not outweigh its positive overall benefits.</p>
<p><b>Policy ENV5: Dark skies</b>            In accordance with the National Planning Policy Framework (paragraph 125) any new developments should limit impact on dark skies. This includes restricting streetlights and lighting of commercial structures.</p>	<p>Construction activity impacts and mitigation include a restriction on night-time working and low-level lighting during construction and following build to reduce light spill onto habitats which support commuting and foraging bats.</p> <p>The design interventions are set out in Table 1.8 of ES Appendix 7.8 Lighting Assessment (<b>APP-085</b>). These include reducing sky glow and the impact on the insect prey of bats by changing the colour of light sources from neutral to warm white, reducing the lumen outputs, reducing the height of lighting columns and installing back shields. Removal of the existing A47 street lighting is subject to ongoing discussion.</p> <p>ES Chapter 7: Landscape and Visual (<b>APP-045</b>) assesses potential effects from lighting including indirect effects (Sections 7.8 and 7.10). Aside from the proposed mitigation measures above, night-time lighting effects would reduce over time following the establishment of screening afforded by Scheme mitigation planting.</p> <p>Overall, there would be a minor adverse magnitude of change and slight</p>

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Policy	Reasons for Conformity
	<p>adverse significance of effect on night-time views at year 1 reducing to a no-change magnitude and neutral effect at year 15 (see Section 7.10).</p> <p>Measures to reduce the potential construction and operational effects of lighting on biodiversity are specified within ES Chapter 8 Biodiversity (Table 8-7) (<b>APP-046</b>) and the EMP (Table 6-1, G2) (<b>APP-124</b>). Construction mitigation includes lighting to be designed to reduce light spill onto habitats which support commuting and foraging bats (see ES Chapter 8 Biodiversity Section 8.9 (<b>APP-046</b>).</p> <p>Any lighting required for construction will be directional, and positioned sympathetically, to minimise light spill and disturbance for sensitive receptors including foraging bats. Disturbance from light spill is not predicted to cause residual effects. In this regard, the Statement Relating to Statutory Nuisances (<b>APP-117</b>) explains how the Scheme would not cause a nuisance for reasons of dust, odour, artificial light, smoke and steam, having regard to the results of the ES (<b>APP-039</b> to <b>APP-053</b>).</p>
<p><b>Policy ENV8: Important views and vistas</b>            The Neighbourhood Plan seeks to protect views across the parish that are of particular community importance. Development within these views that are overly intrusive, unsightly or prominent, to the detriment of the view and vistas as a whole, will not be permitted.</p> <p>The following views and vistas are considered particularly important:</p> <ul style="list-style-type: none"> <li>• Approaching Blofield from the west, view towards the east looking at the church tower.</li> <li>• Approaching Blofield from the east on Lingwood Road.</li> <li>• Views to Braydeston generally from the north.</li> <li>• View from Woodbastwick Road, north of Blofield Heath, looking west.</li> </ul>	<p>The LVIA considers both construction and operational phase impacts and includes an assessment of likely significant effects on key visual receptors, representative viewpoints, landscape character areas, residential properties, PRoW and community facilities. It also considers the effect on tranquility and night-time effects. Effects are considered over a 15-year period of operation (see ES Chapter 7 Landscape and Visual (Section 7.10 <b>APP-045</b>)).</p> <p>At year one of operation there would be slight adverse effects on landscape features and moderate adverse effects on landscape character arising from the residual loss of vegetation and the relative prominence of Scheme infrastructure. At year one of operation there would be moderate to large adverse effects on visual receptors associated with views of the elevated overbridges or where affected by close proximity views of the Scheme.</p> <p>By year 15 of operation, with the establishment of Scheme landscape mitigation, effects on landscape features would be neutral. Effects on landscape character would retain a slight adverse effect in recognition of the residual increase in built infrastructure. By year 15 of operation the</p>

ExA Question 1.1.14 – Policy Compliance with Broadland Development Plan	
Policy	Reasons for Conformity
Policy TRA3: Walking and cycling Developments, where it is appropriate, should contribute to an enhanced and joined-up network of high quality footpaths/rights of way to improve access to village amenities and the countryside.  Walking and cycling be encouraged. New developments will be expected to make adequate provision of crossing points, safe footpaths and cycleways, in accordance with national planning guidance and local Connexions to existing provision and desire lines.  Development should make provision for level pavements and appropriate drop-curbs for residents with mobility difficulties.	<p>establishment of Scheme planting would contribute to screening of the elevated overbridges and highway infrastructure.</p> <p>The evolution of the Scheme's design is described in the Scheme Design Report (<b>APP-123</b>). The design has considered the adjacent landform and sought to minimise intrusion. It also includes appropriate landscaping measures to mitigate potentially harmful effects on views associated with the Scheme which will be more effective as they mature. In particular, views of St Andrews Church Spire will be preserved.</p> <p>A Walking, Cycling, Horse-riding Assessment and Review (WCH) process has been undertaken as part of the Scheme. The outcome of the assessment is summarised in ES Chapter 12 Population and Human Health (<b>APP-050</b>). Table 12-14 of Chapter 12 sets out the significance of residual impacts to WCH which include the unavoidable severance of a public right of way but also the creation of new footpaths and cycleways.</p> <p>The Scheme provides support to walking, cycling and other vulnerable users by incorporating safe, convenient, accessible and attractive routes for pedestrians and cyclists. A new footway is to be provided on the southern frontages of the realigned Waterlow and existing Yarmouth Road allowing a connection to the existing footway on the northern frontage of Yarmouth Road. A new footway/cycleway is also to be provided along the northern frontage of the realigned Waterlow, across the proposed Blofield Overbridge and along the northern frontage of the existing A47 alignment that will be downgraded as part of the Scheme. This route will provide a link between Blofield and North Burlingham for pedestrians and cyclists.</p> <p>A new PRoW footpath will be provided to the south of the new A47 alignment connecting the Blofield Overbridge to the B1140 junction. This route connects with multiple north / south permissive routes and footpath Burlingham FP3.</p> <p>New footway/cycleway crossing facilities will also be provided as part of the proposed grade separated interchange allowing safe crossing of the new A47 for pedestrians and cyclists between South Walsham Road and the B1140. The new provision will also include a footway/cycleway link into</p>



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	<p>North Burlingham via the existing A47 to be downgraded and Main Road.</p> <p>The inclusion of new walking and cycling routes aligns to sustainable and integrated transport objectives and these new provisions introduce greener transport options locally.</p>

## APPENDIX E – 1.1.15

### Summary of predicted residual effects

To provide a summary of the likely significant residual effects identified within each ES Chapter, the predicted residual effect tables have been pulled together and are detailed below for the following ES Chapters:

- ES Chapter 6: Cultural Heritage (**APP-044**)
- ES Chapter 7: Landscape and Visual Effects (**APP-045**)
- ES Chapter 8: Biodiversity (**APP-046**)
- ES Chapter 9: Geology and Soils (**APP-047**)
- ES Chapter 11: Noise and Vibration (**APP-049**)
- ES Chapter 12: Population and Human Health (**APP-050**)
- ES Chapter 13: Road Drainage and Water Environment (**APP-051**)
- ES Chapter 15: Cumulative Effects Assessment (**APP-053**)

The scope of the EIA considers a wide range of impacts and receptors specific to each discipline in order to identify relevant potential likely significant effects. As a result, a single table presenting significant effects can be unhelpful to the reader as the editing required can undervalue or possibly invalidate the detailed results of the assessment. All conclusions presented in these tables should be read in conjunction with the correlating chapter(s).

## ES Chapter 6: Cultural Heritage (APP-044)

NHLE / HER / BLO Ref Name	Designation	Value / Sensitivity	Description of impact and mitigation proposals	Magnitude of Impact before mitigation	Magnitude of impact after mitigation	Significance of Effect
MNF62994 Early 20th century milestone marking Norwich 7 miles and Yarmouth 15 miles	None	Medium	Asset is within the Proposed Scheme boundary. The asset will be appropriately conserved, restored and protected during works. It will then be proposed for listing to Grade II.  The magnitude of impact is assessed being on the individual asset as well as on the setting and group value of all remaining milestones on the former turnpike and the turnpike itself. This could lead to an assessment of either moderate or major significance. In this case, moderate was chosen to not overstate the effect.	No change	Major beneficial	Moderate beneficial
MNF62995 20th century milestone marking Norwich 9 miles and Yarmouth 13 miles	None	Medium	Asset is within the Proposed Scheme boundary. The asset will be appropriately conserved, restored and protected during works. It will then be proposed for listing to Grade II. Layout of paths, fences and planting will re-instate the general visual context of the asset, enhancing its setting.  The magnitude of impact is assessed being on the individual asset as well as on the setting and group value of all remaining milestones on the former turnpike and the turnpike itself. This could lead to an assessment of either moderate or major significance. In this case, moderate was chosen to not overstate the effect.	No change	Major beneficial	Moderate beneficial

NHLE / HER / BLO Ref Name	Designation	Value / Sensitivity	Description of impact and mitigation	Magnitude of Impact before mitigation	Magnitude of impact after mitigation	Significance
1051522, MNF8523 Church of St Andrew	Listed Building Grade I	High	Traffic on the new road will be visible and audible, and this will change with season and weather. As the traffic on the new carriageway will be further away to the south than the current A47 alignment, and landscape planting will be designed to be in keeping with the current screening, this is considered a positive effect overall.	No change	Minor beneficial	Moderate beneficial

## ES Chapter 7: Landscape and Visual Effects (APP-045)

LCA reference	Magnitude of change	Significance of effect
<b>LCA 2: Blofield / Lingwood Valley</b> (medium sensitivity)	Moderate adverse	<b>Moderate adverse</b>
<b>LCA 3: Blofield / Lingwood Plateau</b> (medium sensitivity)	Moderate adverse	<b>Moderate adverse</b>
<b>LCA 4: Burlingham Plantation</b> (medium sensitivity)	Moderate adverse	<b>Moderate adverse</b>
<b>LCA 5: Freethorpe Plateau</b> (medium sensitivity)	Moderate adverse	<b>Moderate adverse</b>

Viewpoint reference	Magnitude of change	Significance of effect
<b>1. Waterlow</b> (high sensitivity)	Major adverse	<b>Large adverse</b>
<b>2. High Noon Lane</b> (high sensitivity)	Moderate adverse	<b>Moderate adverse</b>
<b>3. Lingwood Road</b> (high sensitivity)	Major adverse	<b>Large adverse</b>
<b>6. White House Lane</b> (medium sensitivity)	Major adverse	<b>Large adverse</b>
<b>B. Yarmouth Road</b> (medium sensitivity)	Major adverse	<b>Large adverse</b>
<b>C. Blofield Road</b> (high sensitivity)	Moderate adverse	<b>Moderate adverse</b>
<b>D. South Walsham Road</b> (low sensitivity)	Major adverse	<b>Moderate adverse</b>

## ES Chapter 8: Biodiversity (APP-046)

Biodiversity resource and valuation	Description of impacts (construction)	Level of impact pre-mitigation	Description of impact (operation)	Level of impact pre-mitigation	Residual effects after mitigation	Level of impact after mitigation	Significance of residual effects
Bats (within Proposed Scheme boundary) (National)	<p>Loss of one tree roost and disturbance of 3 tree roosts during construction.</p> <p>Disturbance of known bat roosts in buildings in Poplar Farm, Oaklands, the Lindens, Hall Cottages and the White House from noise, vibration and light.</p> <p>Permanent loss of foraging habitat, severance of commuting routes and foraging areas, disturbance resulting in avoidance and abandonment of habitats and roosts.</p>	Major Adverse	<p>Direct mortality through traffic collisions due to wider road. Pollution of water courses could lead to reduction in prey availability.</p> <p>Disturbance from noise, vibration or light spill resulting in permanent avoidance and abandonment of foraging habitats, commuting routes and roosts.</p>	Major adverse	<p>After mitigation included in the precautionary method statement, residual effects to roosts will be neutral.</p> <p>Disturbance from loss of habitat during construction will not be remediated immediately as there will be a time lag between loss and the remediated habitats reaching maturity.</p> <p>Disturbance from noise, vibration and light spill is not predicted to cause residual effects.</p> <p>Mortality through traffic collisions is predicted to be less likely once remediated road side trees mature.</p> <p>Mitigation has been designed on a precautionary basis ie that bats may cross the road at a risk height and this is reflected in the residual effects stated for the bats.</p>	Moderate Adverse	<b>Moderate Adverse</b>

## ES Chapter 9: Geology and Soils (APP-047)

Receptor	Summary of effects	Mitigation measures	Significance category
Agricultural soils	Stripping of topsoil across the proposed scheme footprint required for the permanent works (road, structures, drainage network, environmental bunds etc)	<p>Inclusion of a Materials Management Plan (MMP) and Soil Management Plan (SMP).</p> <p>Minimising over-excavation of soils.</p> <p>Reuse of soils as much as possible on the Proposed Scheme</p> <p>Use of best practice measures for soil handling</p> <p>Logistical planning of site layout and access</p> <p>Identifying soils subject to earthworks and construction activities</p>	<p><b>Receptor sensitivity:</b> Very high</p> <p><b>Magnitude:</b> Major</p> <p><b>Significance:</b> Very large</p> <p><b>Duration:</b> Permanent</p>
Agricultural soils	Stripping of soil across the Proposed Scheme footprint required for the temporary works (construction compounds, haul roads, gas pipeline diversion)	<p>Inclusion of a Materials Management Plan (MMP) and Soil Management Plan (SMP).</p> <p>Minimising over-excavation of soils.</p> <p>Reuse of soils as much as possible on the Proposed Scheme</p> <p>Use of best practice measures for soil handling</p> <p>Protection of the agricultural soils within the temporary land take</p> <p>Logistical planning of site layout and access</p> <p>Identifying soils subject to earthworks and construction activities</p> <p>Specifying areas of soils to be stripped, stored and replaced to their baseline condition</p>	<p><b>Receptor sensitivity:</b> Very high</p> <p><b>Magnitude:</b> Minor</p> <p><b>Significance:</b> Moderate</p> <p><b>Duration:</b> Temporary</p>

## ES Chapter 11: Noise and Vibration (APP-049)

Receptor Group	Magnitude of change	Significance of Environmental Effect	Justification of Significance Conclusion
Strumpshaw Road/Stone Road/Wood Lane	Major/moderate beneficial in the short term, moderate/minor beneficial in the long term	Significant beneficial	The long term impact is predicted to be of a lower magnitude than the short term. However, the major/moderate change at 17 dwellings in the short-term is considered a significant beneficial effect.
Yarmouth Road (Blofield)	Major/moderate adverse in the short term, minor/moderate adverse in the long term	Significant adverse	For 37 dwellings either side of Yarmouth Road an increase in road traffic noise level results from the predicted increase in traffic flows and speeds along this road. The impact magnitude remains moderate in the long-term and a significant adverse effect is predicted.  Significant adverse effects are likely at dwellings within 80m of Yarmouth Road (between the A47 and the Danesbower Lane junction).
Receptors on the B1140 (High Road)	Moderate/major adverse in the short term, moderate/minor adverse? in the long term	Significant adverse	The long term impact is predicted to be of a lower magnitude than the short term. However, 18 receptors are predicted to have a moderate adverse impact in the long term. Therefore significant adverse effects are likely at a number of dwellings on the B1140 (Cock Tavern to Sandy Lane).

## ES Chapter 12: Population and Human Health (APP-050)

Description of impact	Sensitivity	Magnitude of impact	Potential impacts (pre-mitigation)	Residual effect
<b><i>Private property and housing</i></b>				
Temporary land take would be required from residential gardens on Yarmouth Road, south of the A47 to construct the western retaining wall.	High	Moderate	Moderate adverse	Moderate adverse
Change in access for residents along Lingwood Road	Medium	Moderate	Moderate adverse	Moderate adverse
Change in access for residents along Lingwood Lane	Medium	Moderate	Moderate adverse	Moderate adverse

Description of impact	Sensitivity	Magnitude of impact	Potential impacts (pre-mitigation)	Residual effect
<b>Community land and assets</b>				
Permanent land-take from the Blofield allotment	High <sup>1</sup>	Minor	Moderate Adverse	Moderate Adverse
Permanent and temporary land-take from Lingwood Community Woodland	Medium	Moderate	Moderate Adverse	Moderate Adverse
Access to Lingwood Community Woodland south of the existing A47	Medium	Minor	Moderate adverse	Moderate adverse

Holding Name	Sensitivity to Change	Land removed from holding (ha) (and % of total size)	Permanent Severance	Magnitude of Impact	Residual Effect
<b>Agricultural Land Holdings</b>					
6	High	9.28 (23)	Moderate	Moderate	Large adverse
7	Very High	9.51 (20)	Moderate	Moderate	Large adverse

Description of impact	Sensitivity	Magnitude of impact	Potential impacts (pre-mitigation)	Residual effect
<b>WCH</b>				
Severance of Burlingham FP3 during construction	Medium	Major	Moderate adverse	Moderate adverse

<sup>1</sup> The sensitivity of the allotment gardens has been increased to High value due to its importance to the local community, as raised during the 2017 non-statutory consultations.



## APPENDIX F – 1.5.11

### 1. Summary

As required by the Planning Act 2008 (the Planning Act), Highways England is required to identify individuals in one or more of the categories set out in Section 44 and 57 for the purposes of consultation and notification under Sections 42 and 56. This includes undertaking “diligent inquiry” to identify parties with an interest in land within Categories 1, 2 and 3.

- Category 1 includes owners, lessees, tenants (whatever the tenancy period) or occupiers of the land within Order limits
- Category 2 includes parties that have an interest in the land or who have the power to sell, convey or release the land within Order limits
- Category 3 includes parties that the applicant thinks that, if the order sought by the application were made and fully implemented, the person would or might be entitled to make a relevant claim for compensation under section 10 of the Compulsory Purchase Act 1965 and/or Part 1 of the Land Compensation Act 1973 and/or section 152(3) of the Act.

In addition, it is necessary to identify

- Crown Interests; and
- Special Category Land

Carter Jonas's Land Referencing team have undertaken diligent inquiry to identify interests in one or more of the categories set out in sections 44 and 57 of the Act.

We conducted a land ownership information refresh (18th October 2019) and review to ensure that all information collected and compiled by the previous consultant was sufficient diligent inquiry for the purposes of S42 consultation.

After developing our own book of reference post the consultation review and land information review, we identified further affected parties which required further consultation this included those which are affected by the scheme and were not consulted previously, and those who were affected differently in regards to land take.

In the build up to submission we conducted a second refresh (24th September 2020) of land ownership information exercise to ensure that all those affected by the scheme were identified prior to submission of the application for development consent.

The methods for developing our book of reference are set out below.

### 2. Desktop Referencing

#### 2.1 HM Land Registry

Upon receiving the land referencing limits from the design/construction team, we conducted a search of the index map and refreshed at key design changes, to locate all registered land registry titles which featured within the red line boundary.

Land Registry data was received in the form of a digital shape file (a GIS layer and a pdf). Digital copies of the Official Copy Registers and Title Plans were downloaded and interrogated to find all relevant freehold, leasehold, mortgagee, beneficiary, other charges and restrictive covenant information, this was extracted and stored in our land referencing database (“LAND System”).

From this data, landownership parcels were created. The landownership parcels were drawn to reflect unique ownership information and stored spatially on a GIS application. Where land was not registered, additional parcels to complete these gaps were created based on OS mapping and site data. As a result, all land within the identified land referencing limits was parcelled and each parcel was given a unique reference number.

Periodic updates were provided by HM Land Registry and this ensured that any changes that occurred to title information was captured.

Whilst, generally such updates would be obtained bi-annually, they were specifically timed to occur prior to key milestones, such as the issue of further section 42 consultation letters, and prior to the submission of the application version of the Book of Reference.

## **2.2 Major Landowners (MLOs)**

Land interest information was requested from MLOs, including local authorities, statutory undertakers e.g. utilities and other landowners with multiple land ownership interests.

Requests to the Norfolk County Council and to Blofield Parish Council were also made, to access the councils' land ownership mapping data for; information regarding public highways and private roads; information about special category land (including open space, commons, fuel and field garden statutory allotments); and any information relating to extant planning permissions which may alter the ownership of a land parcel; and known future public and privately funded developments, where relevant.

Information was received in a variety of formats and entered into the LAND System and our GIS application as appropriate. Where necessary, further enquiries were made to address any changes, anomalies, or gaps.

## **2.3 Other Desktop Activities**

Desktop studies including publicly available online mapping, were used to check for open spaces and rights of way within the land referencing limits and further research was carried out to identify ownership in relation to such interests. The information obtained through this diligent inquiry was incorporated into the LAND System and our GIS application.

Additional desktop research and checks were undertaken to confirm information received through direct site inquiries and from HM Land Registry. For instance, Companies House searches and LexusNexus TracelQ were undertaken to ensure registered companies' details were verified and updated where necessary, ensuring appropriate addresses for service of statutory notices and other correspondence.

## **2.4 Observational Site Visits**

Observational site visits were also made as part of the land referencing process, to inform our understanding of the nature and current use of the land within the Order limits. Physical features on the ground were recorded, such as infrastructure e.g. highways, as well as commercial premises and industrial land. In addition, the site team examined potentially complicated sites such as land with multiple ownership / occupancy interests, unregistered land, or land with multiple rights of access. All information obtained was recorded in the LAND System and our GIS application.

## **3. Potential part 1 compensation claimants' identification**

- The Land Referencing Approach for identifying part 1 claimants (Land Compensation Act 1973) for Blofield is a precautionary one taking into account geographic principles, the proximity of land outside the red line boundary, significant design change/impacts in the existing network and exercising

professional judgement regarding where land value may depreciate because of the significant impacts of the relevant physical factors;

- Noise
- Vibration
- Smell
- Fumes
- Smoke
- Artificial Lighting
- Discharge of any solid or liquid substance on to land

Once potential part 1 claimants were identified for the purpose of the book of reference this information was kept up to date and was included in the land ownership information refreshes on 18<sup>th</sup> October 2019 & 24<sup>th</sup> September 2020.

#### **4. Contact Referencing**

##### **4.1 Request for Information (RFIs)**

Information obtained through desktop research was supplemented and verified through the use of 'requests for information' ("RFIs"), which included requests for information about a recipient's own interests, associated third party interests and the spatial extent of land or property. Where RFIs were returned with updated information regarding an owner, tenant/lessee, occupier or other party, the information provided was used to update the LAND System and our GIS application.

Where returns to RFIs were not provided (despite having been requested), follow-up site visits were made. Two separate site visits were conducted to make direct contact with the owner or occupier of the property. Recipients of the RFIs were also offered the means to respond to or ask questions about the project via a dedicated project email and hotline. The land referencing team recorded all correspondence and communication in the LAND System.

##### **4.2 Contact Site Visits**

Contact site visits were undertaken to confirm land ownership and identify the occupation details for properties e.g. leaseholders, tenants, occupiers etc. These site visits were initially targeted at properties where no RFI had been returned by the recipient, however these were also conducted at properties where recipients had returned the RFI, to clarify any gaps in information.

The site referencing team also used this opportunity to confirm any information which may have been gathered through desktop referencing methods. During the site visits, where there was no response at a property, a calling card was left in the letterbox detailing the date and time of the attempted visit, along with the telephone number for the land referencing team.

This calling card instructed owners / occupiers of the property to call to arrange a suitable time for our site team to visit their property. If no response was received, the property was visited a minimum of two further times to make direct contact with the owner or occupier of the property. On each occasion, a calling card was left at the property encouraging the owner / occupier to respond to the RFI or contact the land referencing team to arrange a visit. The date and time of all attempted site visits to a property are recorded in the LAND System.

##### **4.3 Unknown Owner - Erection of On-Site Notices**

Where land ownership could not be ascertained through desktop or site referencing methods, the land referencing team erected notices on site, requesting information about the ownership of the land to which the

notices were affixed. The notices showed the land ownership boundary in question and provided details of how to contact the land referencing team with any relevant information. Any information received was added to the LAND System and our GIS application.

## 5. Data Management

All information on land interests within the referencing limits was stored in Pinpoint. This included the nature of their interest and contact details. All communication and correspondence with landowner and occupiers were recorded and uploaded to the LAND System against the relevant party.

This included:

- RFIs issued and received by post
- RFIs completed on site
- Date and time of site visits (successful and unsuccessful)
- Incoming and outgoing emails
- Records of telephone conversations
- Incoming and outgoing letters
- Statutory Notices
- Details of landowner / stakeholder negotiations LAND System also stored all Land Registry titles and plans.

These were uploaded against the relevant land parcel and related to the relevant interest(s). This ensures a clear audit trail of the land ownership investigations and also serves as an instant source for all land and property information.

## 6 Deliverables for DCO Application Submission

The land referencing information was compiled into a Book of Reference and associated Land Plans. The Book of Reference is in five parts as prescribed by Regulation 7(1) of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009.

- Part 1 lists all Category 1 interests (owners, lessees, tenants and occupiers) and Category 2 interests (parties that have an interest in the land or who have the power to sell, convey or release the land within Order limits)
- Part 2 lists all Category 3 interests (those with a relevant claim for compensation. There is precedence for this Part to be split into two sections (Part 2A and Part 2B). Part 2A lists parties with a relevant claim within Order limits, and Part 2B identifies parties with a relevant claim outside of Order limits
- Part 3 lists all parties entitled to enjoy easements or other private rights over land within Order limits
- Part 4 lists all Crown interests in land within Order limits
- Part 5 lists all Special Category Land to be affected within Order limits

In parallel with the production of the Book of Reference and Land Plans, the information is also incorporated within the Order schedules, listing plots over which powers of compulsory acquisition are limited to:

- Permanent Acquisition of Land
- Permanent Acquisition of New Rights
- Temporary use and possession of

In addition, Appendix A to the Statement of Reasons lists the purpose(s) for applying for compulsory acquisition powers over each plot within the Book of Reference and Land Plans.

## APPENDIX G – 1.14.12

2040- Volume/Capacity ratio (%)	AM			IP			PM		
	DM	DS	Diff	DM	DS	Diff	DM	DS	Diff
A47 Westbound	97	109	12	86	88	2	98	102	4
Yarmouth Road	101	101	0	50	52	2	63	61	-2
Cucumber Lane	89	94	5	54	53	-1	80	82	2
A47 Eastbound	99	103	4	98	102	4	108	110	2
2040- Delays at Stop line-Seconds	AM			IP			PM		
	DM	DS	Diff	DM	DS	Diff	DM	DS	Diff
A47 Westbound	15	174	159	6	6	0	20	46	26
Yarmouth Road	80	93	13	12	13	1	15	17	2
Cucumber Lane	45	63	18	12	14	2	24	31	7
A47 Eastbound	5	68	63	5	44	39	162	187	25