

A428 Black Cat to Caxton Gibbet improvements

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9.76 Written submission of oral case Issue Specific Hearing 4
on 30 November 2021

Planning Act 2008

Rule 8(1)(k)

The Infrastructure Planning (Examination Procedure)
Rules 2010

December 2021

Infrastructure Planning

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(Examination Procedure) Rules 2010**

A428 Black Cat to Caxton Gibbet improvements
Development Consent Order 202[]

**9.76 Written submission of oral case for
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Table of Contents

Chapter

1	Introduction	1
2	Representations at the Issue Specific Hearing 4	2

Table of Tables

Table 2-1 - Written summaries of oral submissions made at Issue Specific Hearing 4.....	2
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1 Introduction

- 1.1.1 This document summarises the case put forward by National Highways (the Applicant), at the Issue Specific Hearing 4 on highways matters including the draft Development Consent Order which took place via MS Teams on 30 November 2021.
- 1.1.2 Scott Lyness QC of Landmark Chambers represented the Applicant and was assisted by experts at AECOM, National Highways, Skanska and Womble Bond Dickinson LLP:
- a. Max Wade (AECOM) represented the Applicant on ecology aspects of the proposed development.
 - b. Philip Smart (AECOM) represented the Applicant on Hydrology elements of the proposed development.
 - c. Grant Paxton (AECOM) represented the Applicant on Drainage and Flood Risk.
 - d. Phil Wayles (AECOM) represented the Applicant on assessment of alternatives.
 - e. Ted Doherty (AECOM) represented the Applicant on highway design.
 - f. Amy Jones (AECOM) represented the Applicant on Brook Cottages.
 - g. Ian Davies (AECOM) represented the Applicant on carbon and climate change.
- 1.1.3 The summary of the submissions below broadly follows the Examining Authority's (ExA's) Agenda for those items that were covered at the Issue Specific Hearing. It should be noted that due to time constraints not all Agenda items were covered during the Issue Specific Hearing and as such those items are not covered below.

2 Representations at the Issue Specific Hearing 4

Table 2-1 - Written summaries of oral submissions made at Issue Specific Hearing 4

Item	ExA Question/Context for discussion	Applicant's Response
AGENDA ITEM 3 - Biodiversity matters, including HRA matters		
a	The ExA asked for confirmation of qualifying features of the Ouse Washes SPA and Ramsar sites and why a list of qualifying features has not been provided to the Examination yet?	<p>In principle, the Applicant has no issue in ensuring that the requested citation is provided to the Examination Library. The Applicant will provide this at the next Examination deadline. The Applicant confirmed they are happy to provide the list of qualifying features now, or the ExA can view it via the Examination Library once the citations have been provided.</p> <p>For the Ouse Washes SAC, citation I Appendix B [APP-233], the matrices in Appendix D to that report are as included in Table 2. The Applicant enquired as to what more was required by ExA. Matrices show whole qualifying picture for the SAC.</p> <p>If one goes down to Appendix D within the document, PDF pg. 143, there is a screening matrix for the Ouse Wash SAC.</p>
a	The ExA asked the Applicant to confirm that all SPAs have been identified within the Habitats Regulations Assessment: No Significant Effects Report [APP-233] .	<p>The Applicant confirms that assessment has been taken with respect to Ouse Washes SPA and Ramsar sites, and the SAC. This can be found in Chapter 8 of the Environmental Statement [APP-077] and the Applicant is satisfied based on that information that there will be no adverse effect.</p> <p>The Applicant will provide citations of the Ouse Wash SPA and Ramsar sites at Deadline 6.</p>
a	The ExA asked why Ouse Washes SPA and Ramsar sites were grouped for screening in Tables 1 and 2 of the Habitats Regulations Assessment: No Significant Effects Report [APP-233] , given inherent differences between birds and fish.	<p>The Applicant confirms that the species for which the Ramsar and SPA sites are designated are almost identical in terms of the lists that are included so, for convenience, they were combined into the tables provided.</p> <p>Spined Loach was identified as a feature needing attention regarding significant effects with respect to the Ouse Washes SAC. The Applicant undertook an assessment of the population of spined loach within the river system upstream of the SAC, concluding that, based on distance from the Scheme, 16km as the crow flies and 43 km following the River Great Ouse, there were no likely significant effects. Natural England (NE) reported that they were able to conclude no effects on the spine loach.</p>

Item	ExA Question/Context for discussion	Applicant's Response
		<p>The Applicant considered it expedient to collate information on the SPA, Ramsar site and the SAC, listing all features that needed to be considered in a single table.</p> <p>The Applicant will split out aggregated detail contained in Table 2 of the Habitats Regulations Assessment: No Significant Effects Report [APP-233] and submit this as three tables, one for each site, at Deadline 6.</p>
b	<p>The ExA asked for an update on the additional Barbastelle bat surveys undertaken by the Applicant.</p>	<p>The Applicant has reported to Natural England (NE) the outcomes of investigations to date and the interim bat survey data. The Applicant is in discussions with NE and NE confirmed that they agree, subject to remaining data being supportive, that the findings show no interaction between bats from Eversden and Wimpole Woods SAC and the Scheme, concluding that the Scheme is unlikely to have an adverse effect on the SAC.</p> <p>NE expressed the view that there was uncertainty with the previous HRA assessment screening based on the surveys taken, NE advised further surveys should be taken and those surveys have and are being carried out and, pending completion of the other surveys, are likely to confirm no likely significant effects. NE believe the SAC Barbastelle bats Habitat Regulations Assessment should still progress to the Appropriate Assessment stage. NE will come to the final decision once all the data has been collected and analysed (the estimated time scale for this is the week commencing 20 December).</p> <p>The Applicant does not agree with this position and does not understand why NE cannot confirm no likely significant effects based on the current information but if the data from the final surveys indicate otherwise, then it would be necessary to consider Appropriate Assessment, instead of prematurely considering Appropriate Assessment when the current data show no likely significant effects (as also agreed by NE). In terms of efficiency and practicalities this method would be appropriate. The Applicant will continue discussions with NE.</p>
b/c	<p>The ExA asked, following the meeting of 23 November, for justification of survey approaches and justification why NE's recommendation of 40 crossing points was scoped out of the assessment?</p>	<p>The two matters listed at Paragraph 4.2.7 and REP4-044, following the meeting on 23 November are in relation to the 2018 surveys and are not directly relevant to the 2021 Barbastelle bat surveys. The scope of the additional surveys was fully agreed with NE.</p>

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b	The ExA is pleased to note progress made and that agreement is being reached. Surveys are only taking place over limited period during autumn and winter when bats may behave differently to different times of the year, how confident can the ExA be that these surveys are representative of scale of bats throughout the year?	The Applicant is providing surveys for a period of the year for which data has not previously been collected. These are supplementary to surveys completed previously. It was at NE's request that the survey occurred at this time and NE had agreed with respect to scope, methods, scale and timing.
b	The ExA clarified that no surveys of SAC bats other than 2021 surveys but throughout calendar year, is there evidence that bats don't travel over towards, through and past the order limits because the Applicant hasn't done survey work of those bats other than current autumn winter ones?	<p>There is significant data relating to Barbastelle and their movements in and beyond the SAC. These include data from investigations by East West Rail, Cambridgeshire Bat Group, and South Cambridgeshire District Council surveys and their work done to establish zones around the SAC. The findings of all these surveys were that the Barbastelle bats did not travel to the Scheme and its immediate environs. However, no one had undertaken surveys over late autumn and early winter. Given the sensitivity of this species, unless there is a real necessity to undertake trapping surveys, the Applicant would not repeat this process over a period where information was already available.</p> <p>The Applicant did undertake trapping and tagging surveys of Barbastelle bats in and adjacent to the Scheme with a view to determining whether those Barbastelle bats moved down south-east to the SAC. It was found that they remained local to the Scheme.</p>
b	The ExA queried fuller precise details on the surveys that have been carried out any by which parties?	<p>The Applicant clarified that two sets of trapping and tagging were undertaken with respect to Barbastelle. The first 2018-19 was in relation to Barbastelle living in the area around the scheme, the purpose of which was to determine whether those bats had any link to the SAC. The data confirmed that they did not.</p> <p>The second survey was in 2021 and that was for the trapping and tagging referred to previously over the autumn and winter period in order to fill the seasonal gap in data for the SAC Barbastelle to test whether they changed their movement behaviour in comparison to the data from the surveys carried out by East West Rail, Cambridgeshire Bat Group and South Cambridgeshire District Council. The outcome was that the movement was similar over the two periods.</p> <p>The Applicant did not apply for license to track and tag within the SAC during the spring and, or summer period as there was already data from these seasons and the Applicant was dubious as to whether a</p>

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		license would be granted given that there was already data and the previously-mentioned sensitivity of the species had to be considered.
b	<p>The ExA queried whether the existing data set from surveys done during spring/summer were in Examination Library?</p> <p>If data is being relied upon, this information does need to be before the ExA.</p>	<p>The Applicant has referred to information by Cambridgeshire Bat Group and South Cambridgeshire District Council (data from which is available through the Examination Library). East West Rail had kindly agreed to share their report with NE. The Applicant has not been able to refer to these data within the Examination to date because they are not owned by the Applicant.</p> <p>The East West Rail data did not exist when the Applicant made the decision that there was no need to trap, tag and track Barbastelle bats from the SAC. This was because of the already substantial amount of data present as a result of previous surveys (mentioned previously). East West Rail were supportive of the conclusions made regarding no likely significant effects with similar patterns to those that came out of the previous surveys. The Applicant was hopeful that East West Rail would agree to release their data and place the report in the Examination Library.</p> <p>The Applicant will contact East West Rail to request permission to add their survey results into the Examination Library. The Applicant confirmed the East West Rail surveys were carried out in late August, and the Applicant's license was for the period of September, complementing those of East West Rail.</p>
c	<p>With regard HRA screening, NE consider that this element should progress to 'appropriate assessment' stage and the surveys should be used to inform this appropriate assessment.</p>	<p>The Applicant does not see a reason to alter the conclusions that were reached in original HRA report particularly as there is now information to confirm this. This may need to be discussed further with NE but the Applicant is still in the position of a 'no likely significant effects' and so considers progression to an 'Appropriate Assessment' stage as unnecessary.</p>
d	<p>The ExA pointed out that there are also a number of other crossings that haven't been identified as bat crossings. Could the Applicant provide information on why proposed bridges and Underpasses (e.g. Toseland Road, Pedestrian footbridge, B1046 Bridge and Barford Road Bridge) haven't been identified as potential bat crossing points? The ExA would like to</p>	<p>Mitigation is being discussed with NE so these issues have not yet been resolved.</p> <p>The results of the surveys of bats using the Scheme and the landscape around it show that the movements of bats across the Scheme are at low levels along most of the proposed route and this is particularly pronounced in the eastern half of the Scheme. This outcome is not unexpected given the landscape of intensive arable agriculture with large fields intensive arable agriculture with large fields and poor quality hedgerows. The exceptions are two crossing points, the River Great Ouse and the hedgerows between Sir John's Wood and Boy's Wood, which had significant numbers of bats of a number of species. Again, this explained by the landscape in these locations, the corridor of a large river and the only section of the Scheme with significant woodlands including a County Wildlife Site. The proposed mitigation in</p>

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	<p>understand the Applicant's thinking on why the East Coast mainline under link was identified as a potential crossing point for bats.</p>	<p>terms of crossing points responds to these findings with crossing points at the two aforementioned crossing points.</p> <p>It is anticipated that the pattern of bat movement will change in time as a result of the substantial amount of habitat that will be created, in large measure replacing the arable fields. Given the anticipated increase in bat activity, the Scheme includes three additional crossings: the East Coast Main Line railway bridge, Hen Brook underpass and the Pillar Plantation (West Brook) underpass plus other crossing points to facilitate the movement across the Scheme (mostly north-south). Additionally, the movement of bats east-west is facilitated by both the proposed Scheme and the legacy A428 which will remain as a strong corridor for bat movement but without the traffic numbers that it experiences at present.</p> <p>The Applicant has provided details on these five crossing point structures and their suitability, demonstrating that they can be used by foraging and commuting bats. This includes the bridge over the East Coast Main Line railway which has habitat suitable for bats to commute and feed along on both sides of the track.</p> <p>In addition to the Environmental Masterplan [TR010044], all structures are detailed on engineering sections drawings provided in APP-019. It should be noted that all structures will be unlit and will have suitable planting and fencing around the entrances/exits. This will require detailed design prior to construction. Viaducts and underpasses comprising tunnels and culverts are accepted as effective interventions if designed properly to mitigate road impacts on bat species. Data on long-term effectiveness of structures by bats are limited and monitoring as part of this Scheme has been recommended to document this.</p> <p>Six other structures including road, cycle and foot bridges along the Scheme, whilst not deemed to be essential mitigation for bats and their movement across the Scheme, are likely to be used by bats, particularly those structures located along existing habitat features such as hedges. They are unlit and have links to adjacent habitats. These are shown on the Environmental Masterplan [TR010044] and the engineering sections drawings provided in APP-019. These are the footbridge, 2.6m wide, near Cambridge Road Junction Wintringham, Toseland Bridge, 13.5 wide open to vehicles with a 4m footway and 2.5m verge; Eltisle Bridge, 14.8m wide open to vehicles with a 4m footway and 2.5m verge; Barford Road Bridge, open to vehicles, 2.5m verges only; Top Farm Bridge, 5.7m wide along existing commuting route, light farm vehicle use, unlikely to be used much at night, and farm access bridge, 7m wide near Croxton, light farm vehicle use, and unlikely to be used by vehicles much at night.</p>

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d	<p>The ExA noted detailed design is to be covered in ISH5 but asked for a brief response to CCC's query of detailed design elements.</p>	<p>The Applicant has ensured that the bats flight paths will be uninterrupted in terms of passing into bat tunnels and agree wholeheartedly with that. In terms of uses to which underpasses are put, there is good evidence of bats using underpasses along with human activity. The Applicant understands the need to ensure that bats are encouraged to use those underpasses, for example, through Hen Brook and linking to the restored corridor in the Wintringham development downstream of the Scheme.</p> <p>In terms of design, there is flexibility in terms of lighting whereby bat and human usage can be combined. At present, the design does not include any lighting of underpasses but in terms of informing discussions on NMUs, there is a degree of flexibility, bearing in mind bats will use tunnels at night.</p> <p>The Applicant concurs with Bedfordshire Borough Council (BBC) that the hedgerows leading to the bat tunnel referred to in the vicinity of St John's Wood are necessary features to ensure the effectiveness of tunnels and there will be monitoring to check structures are working alongside landscaping as planned. This will be included in the second iteration EMP.</p>
e	<p>The ExA aggregated a net loss of 5% through the different elements of the DEFRA 2 metric. The ExA would like a brief summary of the difference between these two metrics and why there are different results produced?</p> <p>The ExA further queried whether the metric has been used in other road schemes.</p>	<p>It is important not to see the outcomes of Defra metric 2.0 as being able to be aggregated, for example, they cannot be simply added up and divide by three to achieve an overall score. The metric has been developed to be more sensitive than that. Through discussion with NE, the more significant part of the metric is in relation to Habitats (+16%), a similar score to that calculated using the Highways England metric.</p> <p>The Applicant noted that the question is put in terms of how the proposed development will meet National Policy Statement for National Networks' objectives and considers that it is initially important to put metrics into context. They are a tool to quantify biodiversity net change, of which Defra metric 2.0 has been used for this Scheme. Defra metric 2.0 post-dated the biodiversity surveys of the Scheme, the data for which were originally collected for other Environmental Assessment purposes. The Applicant took a highly precautionary approach in terms of how data was entered into the metric. This explains to a significant extent as to why the Hedgerow came out as low as it did on the minus side. Making slight modifications to the data so as to account for this overly precautionary approach makes the hedgerow slightly positive.</p> <p>The Applicant confirmed that it will list examples where Defra metric 2.0 has been used in other road schemes.</p>

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e	<p>The ExA drew attention to the non-inclusion of the 2021 field surveys and so not considering the actual condition of the habitats assessed [REP4-059, Q2.3.2.1].</p>	<p>The results of the 2021 surveys post-dated the re-calculation of BNG using Metric 2.0. On analysing the survey results, they showed no significant change in habitat area and, or condition, and hence there was no value in re-doing the calculations (9.63 Updated Terrestrial Habitat Surveys 2021 Technical Note [REP5-013] and 9.58 Aquatic Habitats Surveys 2021 Technical Note [REP5-008]). A relatively small change was a decrease in condition of arable margins which might increase the Habitat measure. Were the Panel to consider that reworking the calculations was necessary, this could be undertaken.</p> <p>Chapter 8, Biodiversity and both the Highways England and Defra BNG metrics have concluded that there will be a significant enhancement of biodiversity based primarily on the increase in habitat area for habitats of medium and high distinctiveness. Further on-site or off-site compensation is not required.</p>
e	<p>The ExA asked whether the DEFRA 2.0 (or 1.0) metric has been used to assess BNG for other road NSIPs?</p>	<p>As stated by the Applicant in response to the ExA's Second Written Question (SWQ) Q2.3.2.1, [REP4-037], the assessment of effects on biodiversity, and the calculation of Biodiversity Net Gain (BNG) are two separate processes. The Scheme's BNG calculations using both the original Highways England metric and the Defra metric 2.0 both show similar outcomes which are supportive of the Environmental Statement conclusions that there would be a significant gain in biodiversity (in area-based and river habitats), immediately post construction, developing over time as habitats establish and mature.</p> <p>The NPS NN does not have any specific requirements for Applicants to calculate BNG for national network schemes; however, paragraph 5.33 of the NPS NN requires the Secretary of State, when considering proposals, to consider whether the applicant has maximised opportunities (resulting in beneficial biodiversity or geological features) in and around developments.</p> <p>The Applicant, in the Application Appendix on Biodiversity Net Gain [APP-206] explains in paragraph 1.1.2 that it has committed to reducing the loss of biodiversity with respect to the Strategic Road Network (SRN), moving to biodiversity neutrality and onto biodiversity net gain. Paragraph 1.1.3 explains that although there is no requirement for delivering BNG within the NPS NN, the Applicant seeks to make a net gain, as a result of the Scheme.</p> <p>The Applicant's response to Q2.3.2.1 explains that the design of the Scheme has, from the outset, sought to maximise opportunities to achieve BNG, both as reflected in the outcome of the Defra metric 2.0 assessment of habitats and watercourses/ivers as well as enhancements for species such as Great Crested Newt and species groups such as bats.</p> <p>The Applicant is aware that the Environment Act 2021 received royal assent on 9 November 2021.</p>

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		<p>Section 99 of the Act brings in Schedule 15, which in turn amends sections 37, 103-105, 120 and 232 of the Planning Act 2008 and inserts a new schedule 2A into it. This will require certain nationally significant infrastructure projects to meet the objective of increasing biodiversity by at least 10% of the pre-development value of the site, calculated by reference to the biodiversity metric.</p> <p>These provisions have not yet been brought into force; there is likely to be secondary legislation containing more detail, but the timescales for this are not yet known.</p> <p>National Highways has a target to achieve no net loss at an organisational level by 2025. As confirmed in the Operations Metric Manual, performance to this target is measured using biodiversity metric 2.0 and this metric is used for NSIP applications. National Highways is required to quantify changes in biodiversity for all of its activities using this metric to report to this organisational level target.</p>
AGENDA ITEM 4 – Flood risk, including interactions between different sources and groundwater dewatering		
a	The ExA notes that the Environment Agency (EA) has raised concerns over the adequacy of proposed groundwater management and drainage at the proposed Black Cat interchange and asked the Applicant to provide an update in relation to the points raised in terms of modelling and testing work.	The Applicant anticipates submitting a technical note on these matters at Deadline 6.
a	The ExA further enquired how and when, if these findings are significant, they would be incorporated to the overall flood risk assessment?	The Applicant will submit a FRA technical note at Deadline 6 as well so the ExA would have all of this information in one place at the same time. For the avoidance of doubt, this will not alter the conclusions of the FRA.
a	The ExA queried whether Bedford IDB have been consulted?	The Applicant will follow-up on this and confirm this to the ExA at Deadline 6.
b	The EA are in general satisfied that adequate mitigation measures will be put	The Applicant confirmed that the modelling done to assess quantities of groundwater flowing will be used by the flood risk team. There will be full coordination between the technical note and methodology.

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	<p>in place. NE stated that the Black Cat Junction has less groundwater than originally presented so a flood risk technical note will take into account any ground water modelling ad this will interlink.</p>	
<p>AGENDA ITEM 5 – Assessment of alternatives</p>		
<p>a</p>	<p>Great weight should be given to heritage assets and any harm should be avoided. The Applicant has set out justification in REP4-032 and REP4-033. The ExA is looking for further evidence to substantiate a clear and justified case.</p> <p>The ExA want to know what further evidence can be provided in terms of clear justifications. Were alternatives worked up in sufficient detail, given the somewhat equivocal (and differing) assessments of the effects of the proposal at the non-statutory consultation stage?</p>	<p>The Applicant provided some introductory comments on the approach to alternatives.</p> <p>The question refers to the issue of alternatives being considered in the context of EIA as well as historic assets, compulsory acquisition and human rights – at the outset, it is necessary to distinguish between EIA and policy requirements relating to alternatives. There is no requirement to provide test to alternatives. The obligation is to provide detail of what the Applicant has done. The Applicant accepts alternatives can be relevant. If one looks at paragraph 1.3.1, this must be read in the context of paragraph 1.3.3. Where if one goes through the test there is clear justification required by paragraph 1.3.1. The Applicant has accepted that its proposals would engage 5.133 and to that extent the Applicant needs to demonstrate substantial harm is necessary and have accepted the question of necessity involved the consideration of potential relevant alternatives for that test. The Applicant is not relying on paragraph 4.27 of NPS. The Applicant has always accepted the policy test of 5.133.</p> <p>It is necessary to recognise that on a Scheme of this scale, there will be inevitably a refinement of options as one progress through stages of design development, initially for Highways Schemes a broad route with a large study area will eventually progress to a more targeted area. One would naturally expect matters, including cultural heritage, relating to broader sweeps of land in the study area and that would progress through different levels of detail as one progresses. It is an iterative process. So far as reference is made to equivocal assessment, the Applicant doesn't accept any implication in that that this is somehow negative, the method simply reflects the fact that there is an assessment and sifting process which takes place and as one works through this, there will be options that are developed and options which are sifted out. That sifting process needs to take place where it cannot be expected that all options are worked up to same level or that matters rejected at one stage will be revisited at another. This is not how the sifting process works, particularly when looking at highway safety and meeting Scheme objectives. There is nothing to indicate anything wrong or unusual with looking at route options and then looking at junction arrangements as part of that iterative process. The work that has been done needs to be seen in context.</p>

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		<p>There was a process that analysed 50 route options, which were sifted to 16 and then a more detailed analysis resulting in the three most viable route options. It is important to say that those initial 12 Black Cat junctions were worked up in 2D concept design, this is a higher number than would normally be expected at PCF Stage 2, which is reflective of understanding of lengths the Applicant needed to go to and the complexity involved. The Applicant did consider options which would have avoided Brook Cottages, these were rejected for safety and technical reasons and there has been no evidence contradicting that finding. Following this, the Applicant looked again at Option C+ (that was based on 3D design work), looking again at whether an option would avoid Brook Cottages – again rejected on safety and technical issues. The Applicant considers no evidence to suggest contradiction rationale for reject avoidance of Brook Cottages and not alternatives.</p> <p>The term equivocal is not regarded as a question of non-compliance.</p> <p>It is not necessary to go back and revisit alternatives based on work done and no evidence before this examination of another reasonable alternative which could have been provided instead, as also confirmed by BBC.</p> <p>The Applicant believes the 12 Black Cat Junction options were developed in an appropriate level of detail. This is reflective of the highly constrained nature of the area, constrained by size, alignment of the A1 and A421 corridors, noise important areas, other cultural heritage assets and also the flood plains. Those all had an influence on the development of options, which were all designed in 2D to enable informed assessment covering safety, technical and environmental aspects. Table 4.4 and the RAG report provides details in relation to the options.</p> <p>At 2D concept stage design, there will always be some uncertainty as to overall design of the scheme, for example understanding the impact of the traffic flows and DMRB standards on slip-road design will only occur once you have 3D assessment. Once the more detailed assessment is completed in 3D you can look at (for example) slip road and earthworks design in more detail, you then get a better feel for overall land take required to be delivered to the scheme. The 3D design was further developed for a Road Safety Audit, which (for example) recommended maximising the weaving length on the A1 northbound on slip road to maximise the distance before the merge onto the A1 carriageway.</p>
a	The ExA queried the chronology if 3D modelling was not done until after stage 2.	This is in Section 4 of the Black Cat Junctions report [APP-247] .

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		<p>Stage 2 work did develop 3D arrangements for Options A, B and C as part of post-non-statutory consultation process and details are included in Section 4 of the options report and that further verified that all three junctions impacted directly on Brook Cottages.</p> <p>It is important to note that this is a developing process, there was a Stage 2 traffic model, the principle of the free flow link between the A421 eastbound and the A1 northbound was established at Stage 2, these 3D designs are developed based on information at that time, as the scheme develops you get more detail and can firm up the impacts on receptors such as Brook Cottages.</p> <p>It was partly because of the assessment that had been done on 2D concept design options that further work was done to understand impact on Brook Cottages and other receptors in the area.</p>
a	<p>Looking at the 12 stage 2 concept options, none showed that Brook Cottages MUST be demolished, for 10 of 12 options, it was considered likely, the two options where demolition not thought likely, these were discounted on road safety grounds. Is there evidence to support the discounting of those options?</p>	<p>Consideration was given in the RAG table on conflict points around movements though the Black Cat Junction. There is a user safety point of view but a broad calculation of some of those movements (for example going north to west and west to north), you could end up going through 16 collision points this and the number of roundabouts with non-standard layout, gave rise to significant enough safety concerns to the team to discount during the sifting process.</p> <p>There was sufficient information to allow sifting to be made but looking across sifting process, some options included fewer conflict points. This was one of the assessment criteria used to sift the options.</p>
a	<p>The ExA is looking at table 4-4 but it is a case of understanding where in the evidence an explanation of how the sifting conclusions were come to?</p>	<p>Appendix C to the overview report shows a RAG table which gives further information on judgements reached on those options. [REP4-032]</p> <p>Appendix A of the Overview report gives plans indicating diagrammatic layouts of junction options. The Overview document Appendix C is the RAG report. The detailed assessment of those options in the RAG report isn't in Appendix G to K [REP4-033], these reports describe the assessment but they don't contain the RAG assessment itself.</p> <p>Option 1e – Fig 4-5 in Appendix A of REP4-032 shows 4 dumbbell roundabouts. For example, if travelling south on the A1 to east on the A421, one would have to go off the A1 to the first roundabout through the next roundabout, pass three more conflict points. Pass through the third roundabout on southern side of A428 and the next roundabout on the north side before using the A421 eastbound slip road. That involves a considerable number of manoeuvres and has a maximum of 16 conflict points judged in RAG rating for this option. There is no free-flow link from West up to the North and this traffic would be conflicted with</p>

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		traffic travelling through the junction. It is a complex non-standard arrangement and the Applicant believes this would have operational issues because of the high traffic flows using these junctions as well.
a	Other options seem to contain those dumbbell roundabouts.	RAG table shows different considerations. Other options had similar / fewer dumbbell roundabouts, but this is not the only consideration – the Applicant assessed the option characteristics in its entirety (such as non-standard routes, etc.).
a	Going through the sifting process, in terms of the road safety view, early stage options. Was that an RSA view or a highway engineer's view?	No RSA was done but it is broader than just highways engineers involved in the assessment and decision making. Not unusual to have people from operations team involved. They have a vested interest in legacy scheme to be developed and adopted due to their involvement in ongoing operational safety, as well as consideration of construction safety.
a	The three stage 2 options taken forward at non-statutory consultation stage, all considered to have impact on Brook Cottages I terms of potential demolition. In terms of the process of sifting and how look at different options, would it be possible to clarify why not appropriate to go back to stage 2 options and look for options unlikely to result in demolition of listed building.	If an option is rejected it is because independent reasons justifying rejection of a particular option. A robust process is taken through the sifting process and National Highways tend not to revisit any options unless something of great significance later emerges. At the time options were assessed, there was no definitive view on whether Brook Cottages would be demolished, the information indicated it would be, but the assessment had been done at a high level. It was only when the developed design was progressed following non-statutory consultation that the 3D drawings showed the level of impact. This was also when the Applicant looked at Option C+ to see if there was an option that would avoid the need the to destroy Brook Cottages. There are also other significant cultural heritage elements in the area that had to be taken into account. It was determined there was still no reasonable alternative, as confirmed earlier by BBC.
a	Looking at Stage 2 options, the three taken forward, these are an amalgamation of the 12 options, all considered likely to have significant impact or not a definitive judgement at that stage and still scope to not require the demolition.	These judgements were made on 2D high level designs and until you have the 3D design and understand the overall traffic impact, you don't definitively know what the impact will be and that demolition cannot be avoided.

Item	ExA Question/Context for discussion	Applicant's Response
a	<p>Non-statutory consultation process, options B and C are identified as 'may' result in removal of Brook Cottages. Whilst for option A, APP-072, table 3.2, there is no mention of demolition for option A whatsoever. What work had been done to get to this stage?</p>	<p>There is an interpretation of “may affect the setting” that it could involve the demolition of Brook Cottages. At that time, as is shown on the layout, the Option A design has an alignment for the slip road which was non-standard, you cannot construct or design it in that way. But because the slip road appeared to tie in to the A1 before you get to Brook Cottages, the Applicant determined it would only affect the setting. However, later design development of Option A showed that the view may change.</p>
a	<p>Option A was deemed likely to require demolition but then got to not requiring demolition. The ExA need to know how the Applicant made this journey.</p>	<p>It is down to an assessment of trying to provide information at that stage of the development scheme, which has been taken at that snapshot in time. For the non-statutory consultation stage when the brochure was produced, it was a judgement based on an evolving process of design development.</p>
a	<p>But for option A, nothing is said about demolition. I am trying to understand the difference.</p> <p>Also, the reason why confused is because 1a and 1c made up option A. Main confusion is because option both requiring demolition lead to an option that 'may only affect the setting' of the cottages.</p>	<p>The assessment changed in the combining of Options 1a and 1c and with design development at that stage of development in advance the Non-Statutory Consultation. There is still some uncertainty in assessment because this is based on high level concept designs and not developed in detail. At that point, affecting the setting could have a more direct impact as well.</p>
a	<p>Th ExA want a clearer idea of how option A came about and how presented. What the ExA currently have in this hearing is not adequate.</p>	<p>The Applicant can take this point away for a Deadline 6 submission, but it may not be more factual information i.e. may be a description of why judgements were made. This was an ongoing process. There is not necessarily black and white judgement.</p> <p>Paragraph 4.2.4 of the Junctions Report [APP-247] explains that Option A was looked at again and determined that at that stage the demolition of Brook Cottages was required. It is all down to professional judgement at non-statutory consultation stage.</p>

Item	ExA Question/Context for discussion	Applicant's Response
a	<p>The non-statutory consultation phase, from that there were three options considered by members of the public, option C preferred, with option A the next most popular. Slight concern on robustness of non-statutory consultation process and how findings were then used in developing the scheme. Option A no demolition, B and C may do. Option plans. The plans for options A and C show no effect for Brook Cottages but B shows a slip road through the cottages. [APP-035]. There are some textual anomalies and slightly confusing plans and what would be effect of this information conclusion. How would non-technical experts been able to interpret effect on Brook Cottages.</p>	<p>One broad comment is that it is important not to consider the words of the document too closely because if an option is identified as potentially requiring the demolition of Brook Cottages but a plan shows the road going directly through the location of Brook Cottages, that is not a defect in the consultation document at all in the sense that most reasonable people looking at the public consultation would recognise this as part of an evolving process in which design hasn't developed in detail at that stage. The information shown on the plan has been sufficient to justify what has been said in the text describing option B. Therefore, there is no tension or discrepancy of plans and text to cause an issue with public consultation - a road going through Brook Cottages on the plan is not a defect.</p> <p>Those at public consultation would have seen specific reference to Brook Cottage and will therefore be aware of its importance; even if they were not, it would be reasonable to assume they would know there is some sort of significance of Brook Cottages. So not identifying it as a listed building does not make it a defect. To confirm, anyone who had any concern of potential impacts of Brook Cottages could comment.</p> <p>Whilst you have said some of the wording is equivocal. Fundamentally anyone who has concern on Brook Cottages was able to comment on options in front of them. If there was concern about impact of the setting under Option A, they could indicate their concerns.</p> <p>The type of drawings that were produced for the non-statutory consultation are consistent in terms of showing the conceptual layouts. Lines for the routes were of a standard that you would normally see at a consultation. Also. it is not normal that you would highlight every receptor on the consultation plans. They are described at that time to provide information so people can understand impact on the scheme. These are typical of what would be produced at this stage of development and sufficient information for people to understand the nature of the junction being proposed and if one had a specific interest, one would understand what impact was and could ask questions to understand further detail.</p> <p>Within the consultation brochure, there is reference to the Black Cat roundabout and under heading of cultural heritage, there are examples of Options B and C leading to impact on Black Cat roundabout. References within the document make it clear that cultural heritage and Brook Cottages are impacted.</p>

Item	ExA Question/Context for discussion	Applicant's Response
a	<p>In terms of non-statutory consultation, please explain how option C became a preferred option at preferred route announcement stage despite option A scoring better in terms of cultural heritage. REP4-033 (appendices G-K Table 10.2).</p> <p>No distinction between any of the options in Table 10-2.</p>	<p>The key driver for the preference for Option C is it is a standard junction layout with fewer conflict points and better from an operational safety point of view. The table 10-2 is comparing options at high level, but there are other factors that influence the decision making that were not included in this summary table, If you look at traffic benefits, for instance, there is more quantitative information that sits behind the high level summary in other reports. This table was just to inform and record decisions made at that time. The criteria may be similar in overall context but there will be differences between the options at a more granular level.</p> <p>The Applicant acknowledges the similarities in the summary assessment some of the options in Table 10-2, and can provide further information about the factors that influenced the decision making. Need to show logical process of how arrived at working chronologically.</p>
a	<p>A further option C+ was developed for option C, this was discounted for highway safety and costs reasons. Looking at this, the ExA query why only option C+ was looked at when the ExA have information that option A could have been a viable option.</p>	<p>Option A had been rejected by that stage and not sufficient reason to revisit this decision.</p> <p>The complexity of Option A was a key driver in terms of responses the Applicant received at non-statutory consultation. Option C was a standard layout and much preferred by respondents. It is easy to understand operationally, and there were safety benefits in comparison to Option A.</p> <p>In terms of development of Option C+, this was done principally to negate the need for demolition of Brook Cottages. That resulted in a convoluted and operationally inadequate junction arrangement – the Applicant would have had to move the slip roads because the Applicant could not merge the on-slip which would lead to (for example) potential flooding of A1 leading to closing of the A1. The knock-on effects were that Bedford Road couldn't be linked into the gyratory, there was then a link road that tied into the northwest corner sand then had to take link through cutting, with an additional structure. Added to that was an impact on the high-pressure gas pipeline.</p>
a	<p>The ExA want this in writing because they need evidence to support what has been said.</p> <p>The ExA are not clear on the evidence supporting judgement decisions made.</p>	<p>The Applicant believes this information is all available but can make chronology more clear.</p> <p>It is understood that more evidence supporting this mindful of chronology is needed.</p>

Item	ExA Question/Context for discussion	Applicant's Response
a	Why was Option C+ combined with the Pink and Purple Route Options but not the eventually preferred Orange Route [REP4-033 Section 5.4 Appendix K]?	<p>The Black Cat Option Design report does indicate the decision to choose refined Option C and the PRA gave reasons in support for this. This will be provided in chronological order.</p> <p>Table 10.2 (from the Scheme Assessment Report) reflects how the design and assessment evolved through this stage. In fact, earlier iterations of the report did contain other comparisons of options. The final report had information to try and get comparisons on the most consistent basis. For example, the various cost-benefit ratios or the scheme benefits. The Applicant can provide a separate submission on this.</p>
a	How does current development work in line with DMRB standards?	<p>The current application design complies with DMRB. The development of the proposed junction arrangement was one of the harder elements of the scheme and there is a need for departures from standard. The Applicant has secured all necessary departures from standard needed to deliver the scheme. e.g. vertical alignment departure of the A421 mainline through the Black Cat Junction. The design of the existing A1 required some fundamental changes to the arrangement in that area. This is principally driven by compliance with DMRB and safety standards. The Applicant provides/achieves the required weaving distance between the A1 northbound merge and that was a contributing factor for the design of the A1 northbound on slip and the fact that the Applicant had to merge the free flow link with slip road from the junction gyratory before merging with the A1 carriageway. The RSA required the design team to maximise the weaving length on this slip road.</p>
a	The ExA has been to the site so well aware of proximity of the A1 to Brook Cottages, what effect do the existing A1 have on historic setting of Brook Cottages and did this have a bearing when considering assessment of alternatives.	<p>The Applicant refers to ES Appendix 6.10 where the Brook Cottages heritage appraisal includes a description of the cottages and overview of historical background and description of setting. AS009 provides an assessment of settings, including changes through improvement to A1. In short, the A1 forms a significant feature which detracts from the heritage setting and results in noise, visual intrusion and ability to appreciate the building in its historic setting. As for the second question of whether this had a bearing on assessment of alternatives, the proximity did not form part of sifting process, the asset was considered the same value as other cultural heritage assets and given a similar weight as other high level heritage assets.</p>

Item	ExA Question/Context for discussion	Applicant's Response
AGENDA ITEM 6 – Heritage matters concerning Brook Cottages		
a	The ExA asked for update on survey and relocation details and whether that is still pending further investigations.	<p>The Applicant has two surveys being proposed, the first (lesser of intrusive surveys) which can be done prior to acquisition, this has started today and is in progress. With regard to the second survey to advise on significance and condition of building, this requires partial demolition so can only take place after acquisition of the building. Applicant has produced a scope and is agreeing this with BBC and HE.</p> <p>The first stage is an asbestos and anthrax survey and a limited intrusive survey, which was discussed early on with a methodology which was submitted to Historic England (HE) and BBC. Part will be asbestos with a structural engineer undertaking minor intrusive works to exterior and unoccupied part of the cottage.</p> <p>The first survey results will be completed and reported on by the end of January.</p>
b	The scale of harm caused by the removal of Brook Cottages and any mitigation effects from its potential re-location.	The Applicant confirmed they are in discussions with HE and the reason why BBC is not involved is because the aim is to get HE acceptance first and then involve BBC.
c	Requirement 16 of the draft Development Consent Order [REP4-006] concerning the demolition and potential reconstruction of Grade II listed Brook Cottages. The ExA has looked at Requirement 16(2)(b) and thinks greater clarity in terms of specific and detailed reasons that would prevent reconstruction is needed.	<p>The drafting partly reflects the fact the lack of clarity the Applicant has until the results from the intrusive surveys are provided. As soon as the survey is concluded, there would need to be an understanding of any structural elements. The drafting reflects fact that intrusive survey is required before the Applicant knows for sure what can be achieved.</p> <p>Beyond what is in latest DCO, the Applicant is in correspondence with HE on potential drafting which will try and include at Deadline 6.</p>
c	The ExA raised a further point on Requirement 16: there is potentially a further provision in terms of demolition, there is no specified timescale in accordance with Requirement 16, that would be on a without prejudice basis	The Applicant will take this away and notes the need to bear in mind any potential implications of timing requirements.

Item	ExA Question/Context for discussion	Applicant's Response
	that the moment, appreciating intrusive survey is required, the ExA consider that this would be something to be covered.	
AOB	A supplemental submission has been accepted AS-018 – request that applicants report on this at Agenda item 4 and 5, if relevant agenda item 3. If relevant further requests for information will be requested.	The Applicant is grateful for this update.
AGENDA ITEM 7 – Sustainability effects, including climate change		
a	The ExA is trying to understand more on regional policies/carbon budgets, which the specific proposed development could be compared to, and the significance of these on different scales.	<p>The Applicant completed the assessment of the scheme in alignment with paragraph 5.17 of the NPS, giving specific guidance on the scheme and national carbon budgets as well as Paragraph 5.18 and the DMRB LA114 climate guidance, requiring Scheme emissions to be put into the context of their impact on national carbon budgets. The Applicant does not say there are any requirements for like for like comparisons at local, regional or national levels. EIA Regulations don't define significance, nothing in NPS requires local or regional assessment. National targets are the yardstick by which the emissions are to be assessed. Only Government can determine what is significant, cumulative or otherwise at a national level. The approach to carbon reduction is set on an economywide basis, emissions in sectors need to be seen in that sense. There is no basis on which policy suggests approaching a local approach. In any event, conceptually emissions do not arise or have effect locally which means there is difficulty in how this would be fed into assessments given emission will arise and impact beyond a Scheme's locality. Additionally, the Applicant has looked at Tyndall Centre targets and how this could be applied, there is no method of doing this in a meaningful or robust way which is why it has been discounted.</p> <p>The Applicant has carried out assessment at national level because this is what is required and where the legally binding targets sit.</p>

Item	ExA Question/Context for discussion	Applicant's Response
a	The ExA asked what would be a significant level of GHG emissions?	<p>The guidance asks for an assessment to be carried out a Scheme level. The Applicant wouldn't want to go further on what would be considered significant in an abstract sense. So far as RIS2 schemes are concerned it is not required as under the NPS for there to be a comparison of relative significance of emissions of this scheme with other RIS2 schemes. Further information has been provided at earlier stages but it is not necessary for the effects of these schemes or their significance to be compared with emissions of other schemes to accord with policy.</p> <p>Assessment has been undertaken in line with NPS (including 6th carbon budget) and the results from testing the significance of the scheme's impact showed it was of low impact and so the Applicant would conclude that it is not significant in terms of the UK meeting its climate change targets.</p>
b	Relative significance of the lifetime GHG emissions of the Proposed Development in comparison with other RIS2 schemes. Present value of -£127m, which in the case for the scheme is identified as not a significant effect. Has there been any assessment of lifetime of GHG RIS2 schemes.	<p>The Applicant is not aware that this exercise has been done.</p> <p>Applicant is aware of the A38 quashing, that the SoS has asked for further information and that is a process in place by which information has been produced. Beyond that Applicant is not able to advise further.</p>
e	R (Transport Action Network Limited) v SoST [2021] EWHC 2095 (Admin) (Appendix A [REP3-020]), including the interpretation of de minimis in the judgement [REP4-073] [REP5-014] ExA asked TAN for comment?	<p>The Applicant confirms that strictly speaking the Applicant does not need to rely on TAN judgement to show compliance with policy and that consideration of the effects of this scheme on the part of RIS2 is not required. One other aspect of judgement is that it confirms that there is no sectoral requirements relevant to this scheme and that emissions in one sector can be balanced against another as part of economy wide budget.</p>
g	Paris aims to restrict emission, in terms of climate GHGs should also be considered globally, countries are working at different rates, many climate emergencies have been declared, what are the implications of the GHG on global carbon budgets including in light of	<p>It is important to recall that the Paris Agreement has been translated into the Climate Change Act 2008 (CCA 2008) and following through from that into Carbon Budgets. The Applicant does not see the Paris Agreement as having effect as far as national budgets are concerned. The Paris Agreement has an environmental objective but it does not impose obligations to limit global temperatures in any particular way. That is left to each individual party in terms of how this will be achieved. It is really a matter for national government. The UK has chosen to implement the Paris Agreement through national legislation</p>

Item	ExA Question/Context for discussion	Applicant's Response
	<p>climate emergencies and what further measures could be embedded to limit or mitigate lifetime GHG emissions.</p>	<p>in way looked at already. The Applicant does not consider these questions in the context of a global carbon budget. The Applicant regards the more important factor as being national carbon measures.</p> <p>The assessment the Applicant included in the ES is already a worst case scenario as the DEFRA toolkit does not build in the full extent of electric vehicles (EV) / or decarbonising transport measures which are likely to increase.</p> <p>Reference made by TAN to new development will made – those are straying into wider policy matters beyond the scope of this hearing.</p>
g	<p>Government has stated that NPSNN should be reviewed but this will not be until 2023. An emergency is something requiring an urgent action to address. Can the ExA be confident this has been dealt with in an urgent manner?</p>	<p>The straightforward answer is that insofar as obligations of the Paris Agreement requirements, this has been addressed by the Government through policy choices and CCA 2008, and 5th and 6th Carbon Budget (with the 6th Carbon Budget coming out in 2030). That does not have any bearing as far as raw policy is concerned, in fact the current NPS is still in effect for the purposes of legislation and the application needs to be determined in accordance with that. The Applicant does not see the Paris Agreement or government response as having any further bearing beyond how the Applicant has approached scheme against national targets pursuant to paragraph 5.13 of NPS. This is taken into account at paragraph 5.17 of NPS.</p> <p>It is about how they work on a conceptual level. The Paris Agreement does not make requirements for national signatures - this process has been followed for the 6th Carbon Budget. The Applicant understands that potential mitigation has been discussed with the CCC and some potential further mitigation can be drawn out in the next draft of the Second Iteration EMP.</p>
h, i	<p>Agenda items H and I will be put into written questions.</p>	<p>This is understood by the Applicant.</p>