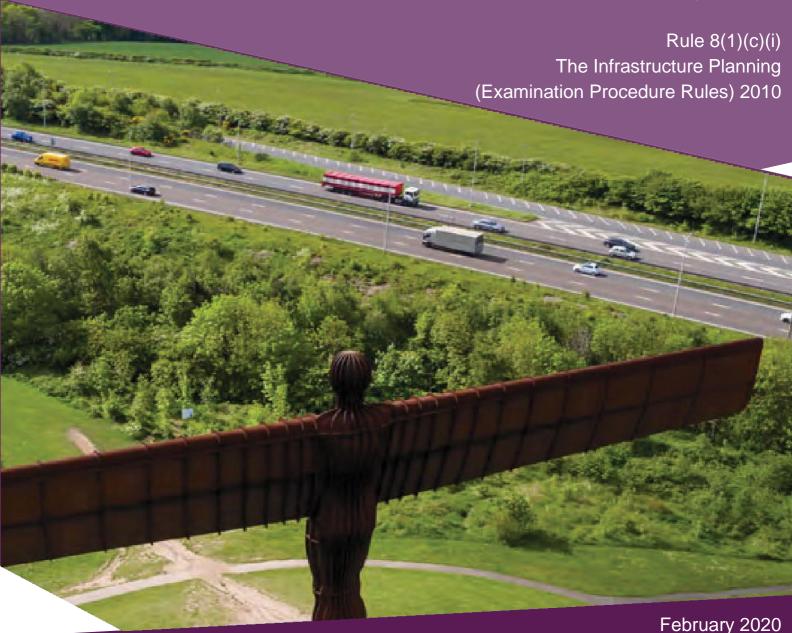


A1 Birtley to Coal House

Scheme Number: TR010031

Applicant's Responses to ExA's First Written Questions

Planning Act 2008





Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Examination Procedure Rules) 2010

The A1 Birtley to Coal House

Development Consent Order 20[xx]

APPLICATION'S RESPONSES TO EXA'S FIRST WRITTEN QUESTIONS

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Table 1.1 – Applicant's Responses to the ExA's First Written Questions - General and Cross-topic Questions

Ref No: 1.0	Question to:	Question: General and Cross-topic Questions	Response:	
Q.1.0.1	Chapter 5 of the Applicant's Planning Statement [APP-171] includes an assessment of the relevant local planning and transport policies. a) Which documents constitute the Development Plan for each local authority area?	a) The Local Development Plan for Gateshead Council is the Core Strategy and Urban Core Plan (CSUCP) for Gateshead and Newcastle upon Tyne 2010 – 2030, Gateshead Local Plan Policies March 2015 and Making Spaces for Growing Places (MSGP) Draft Plan.		
		b) Do you agree with the list of relevant policies set out by the Applicant in this document? Are there any additional policies you consider to be relevant to the	by the Applicant in this document? Are there any	The Core Strategy and Development Plan (2015- 2033) was adopted by Sunderland City Council on 30 th January 2020. It sets out long-term development across the city to 2033. Sunderland's Local Plan is in three Parts:
		justification for their relevance.	Part One – Core Strategy and Local Plan (The Plan)	
		c) Are there any relevant emerging policies? If so, what	Part Two – Allocations and Designations Plan (A&D Plan)	
		is their current stage in the plan adoption process?d) Please provide copies of all relevant adopted and emerging policies.	Part Three – Internationally Advanced Manufacturing Park (IAMP) Area Action Plan (2017 – 2032)	
			The Plan and the IAMP AAP have superseded saved policies of the Sunderland Unitary Development Plan (UDP) 1998 UDP Alterations No. 2 (2007). A number of policies remain as saved policies and part of the Development Plan until such time as the A&D Plan is adopted.	
			The Planning Statement [APP-171] has been updated to reflect the updated policy position.	
			b) The Applicant has identified the relevant policies within Section 5 of the Planning Statement. and is seeking to agree these policies via the Statement of Common Ground (SoCG) with the two local planning authorities.	
			c) LPA's to provide these. Highways England has identified the following policy as emerging:	
			"Making Spaces for Growing Places (Local Plan Part 3)" in paragraph 5.3.31The Submission Draft MSGP published in October 2018 sets out proposed site allocations and development management policies for Gateshead, that will complement and support the Core Strategy and Urban Core Plan. The Submission Draft MSGP whilst at a relatively advance stage in development has not yet been the subject of an examination. Nevertheless, as emerging policy it is relevant in demonstrating the direction of travel for policy making in Gateshead and provides further details with regard to planned development areas."	
			WSP can check if any others have been identified if required.	
			Sunderland City Council has not yet adopted the A&D Plan.	
			d) The Applicant is able to provide copies of all policies if required.	



Ref No: 1.0	Question to:	Question: General and Cross-topic Questions	Response:
Q1.0.2	Gateshead Council, Sunderland City Council, Environment Agency, Natural England and Historic England	The outline Construction Environmental Management Plan (CEMP) [APP-174] including the Record of environmental actions and commitments (Table 3-1) and outline Construction Traffic Management Plan (CTMP) (Appendix B) includes measures to avoid, prevent, reduce or, where possible and appropriate, offset the potential environmental impacts associated with the construction of the Proposed Development. Please comment on the acceptability of the outline CEMP including any potential amendments or additions that may, in your view, be required. Provide appropriate justification for any amendments or additions sought.	
Q1.0.3	Applicant	Paragraph 2.5.12 of the Environmental Statement (ES) [APP-023] states that the ES assessments are based on the works proposed in Schedule 1 of the draft Development Consent Order (dDCO) [AS-012], the Works Plan [AS-011], Engineering Section Drawings [APP-009], General Arrangement Plan [APP-010] and the maximum area of land anticipated to be required, taking into account the Limits of Deviation for the Proposed Development. A set of 'Structures Engineering Drawings and Sections' [APP-011], which include more details of the structures, have also been provided with the application. Can the Applicant explain to what extent the Structures Engineering Drawings and Sections have been taken into account in relevant ES assessments?	In addition to the documents set out in paragraph 2.5.12 of Chapter 2 The Scheme of the ES [APP-023], it is confirmed that the set of Structures Engineering Drawings and Sections [APP-011] has also been used to inform the ES assessments where relevant.
Q1.0.4	Applicant and Gateshead Council (part c only)	Section 5.4 of the Planning Statement [APP-171] sets out the Applicants position regarding the Green Belt policy implications of the scheme. a) For the avoidance of doubt, list all the elements of the scheme (for both the construction and operation phases) that are considered to be inappropriate development within the Green Belt? b) With reference to paragraph 5.4.6 of the Planning Statement, please explain in further detail why proposed engineering operations, including below ground and ground level works, are considered to preserve Green Belt openness? c) The Council's comments are requested on the Applicant's Green Belt assessment. Where there are areas of disagreement please explain why.	a) The question of inappropriate development in the context of the green belt is addressed by paragraph 5.4.4 to 5.4.10 of the Planning Statement [APP-171]. With regard to Green Belt policy, consideration of national policy (National Planning Policy Framework (NPPF), paragraph 146) indicates that the Scheme, at least in part, would be inappropriate development in the Green Belt. Inappropriate development is, by definition, harmful to the Green Belt. Certain types of development are considered by government not to be inappropriate in the Green Belt provided they preserve its openness and do not conflict with the purposes of including land within it. These include "engineering operations" and "local transport infrastructure which can demonstrate a requirement for a Green Belt location" As part of the Strategic Road Network (SRN), the Scheme would not fall within the category of "local transport infrastructure" even though it is expected to benefit local traffic through relieving congestion. However, the Scheme is able to demonstrate a requirement for a Green Belt location, which forms a part of the test under NPPF paragraph 146. The Scheme would include "engineering operations", which NPPF paragraph 146 states would not be inappropriate development provided they preserve the openness



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			of the Green Belt. Ground level and below ground works proposed as part of the Scheme would not affect openness. Above ground structures such as bridges, gantries and embankments may be considered not to preserve the openness of the Green Belt, these are shown on attached drawing at Appendix 1.0 A.
			b) Paragraph 5.4.6 of the Planning Statement [APP-171] describes the proposed engineering options of the Scheme.
			Green Belt tests
			The Planning Statement identifies that the majority of the Scheme and engineering operations fall within the Green Belt.
			Paragraph 5.4.8 of the Planning Statement sets out the five tests that development needs to comply with in order to be considered appropriate Green Belt development. Paragraph 5.4.9 concedes that to a limited extent the Scheme encroaches onto previously undeveloped land within the Green Belt.
			Construction
			During construction the openness of the Green Belt will be impacted by the construction of temporary building and structure in two construction compounds and the storage of materials, large plant and other materials. These will be of the temporary nature and can be removed once the construction works have been completed, therefore resulting in no permanent impacts on the openness of the Green Belt and meeting all the Green Belt test.
			Operation
			During operation, the below ground works such as grouting and carriageway widening, as they will satisfy the NPPF Green Belt tests.
			The majority of the above ground works fall within the Scheme Footprint and built form of the existing highway and engineering structures such as bridges and embankments. These elements of the Scheme will also not affect the openness of the Green Belt and, therefore, satisfy all the Green Belt tests set out in Section 5.4 of the Planning Statement [APP-171].
			As set out above, the only elements of the Scheme which could be considered to be inappropriate development in the Green Belt are those elements which encroach on the existing open agricultural land or result in an increase in footprint, scale or massing such as the increased Allerdene Bridge footprint and the additional, new signal gantries.
Q1.0.5	Applicant	In the context of the Green Belt assessment, paragraphs 5.4.11 to 5.4.16 of the Planning Statement [APP-171] deal with 'other harm'. Paragraph 5.412 states that other harm may arise due to the effect of the scheme on the landscape and views across the Green Belt. The Court of Appeal judgment in SSCLG & Others v Redhill Aerodrome Ltd	The Applicant has reviewed The Court of Appeal Judgement in SSCLG & Others v Redhill Aerodrome Ltd [2014] EWCA Civ 1386 found at http://www.bailii.org/ew/cases/EWCA/Civ/2014/1386.html



Ref No: 1.0	Question to:	Question: General and Cross-topic Questions	Response:
Ref No: 1.0	Question to:	Question: General and Cross-topic Questions [2014] EWCA Civ 1386 confirmed that the interpretation given to 'any other harm' in paragraph 88 of the original National Planning Policy Framework (revised Framework paragraph 144) is such that it is not restricted to harm to the Green Belt. In this context, is it necessary to update the Planning Statement assessment of the scheme including the sections on 'Other Harm', Very Special Circumstances' and 'Planning Balance' to appropriately reflect the position regarding 'other harm'?	Response: This decision confirms that interpretation given to 'any other harm' in paragraph 88 of the original NPPF (revised Framework paragraph 144) is such that it is not restricted to harm to the Green Belt and should consider all environmental impacts. Harm to landscape character and visual impact should also be given weight along with harm to all other environmental impacts including quality of life through noise disturbance and failure to satisfactorily resolve the capacity and mode of travel issues. Other Harm Green Belt Policy is addressed by paragraph 5.4 of the Planning Statement [APP-171]. Other Harm is addressed by paragraphs 5.4.11 to 5.4.16 of the Planning Statement [APP-171]. Assuming that this section on "other harm" should be broadened to include all environmental effects in addition to landscape and visual effects then this section can be supplemented with information in Chapter 16 Summary of the Environmental Statement (ES) [APP-037] which provides a summary of likely significant effects all environmental effects generated by the Scheme. The Landscape and Visual elements of the Scheme are already considered in the paragraph 5.4.2 of the Planning Statement [APP-171] and Chapter 7 Landscape and Visual of the ES [APP-028] which concludes that the A1 and East Coast Main Line (ECML) already disturb view of the Green Belt and although this disturbance is considered to be increased slightly by the demolition and replacement of the Allerdene Bridge. The impact on these views is also identified in Chapter 6 Cultural Heritage of the ES [APP-027]. No significant adverse or beneficial effects have been identified for the construction or operational phase of the Scheme for: Air Quality (Chapter 5 [APP-030]); Material Resources (Chapter 10 [APP-031]); Population and Health (Chapter 12 [APP-033]); Road Drainage and Water Environment (Chapter 13 [APP-034]); or Climate (Chapter 14 [APP-035]) chapters of the ES. In addition to the landscape and visual and setting impacts the: • Chapter 16 Cultural Heri



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			It is, therefore considered that the existing conclusions of the Planning Statement [APP-171] are correct. In response to this question the level of detail provided in the Planning Statement can be increased to address wider environmental topics that might be considered "other harm" in accordance with the above decision as set out in Appendix 1.0x.
			Very Special Circumstances The Scheme's Very Special Circumstances are addressed by paragraphs 5.4.17 to 5.4.21 of the Planning Statement [APP-171] which include the critical need for the Scheme to address road congestion to provide safe, expeditious and resilient networks to support economic growth, support in local planning policy and lack of alternative options outside of the Green Belt. Given the review of the "other harm" has not identified any other significant adverse or beneficial impacts the text within this section of the Planning Statement remains correct and does not need to be changed. Explicitly that other harm may arise due to the effect of the Scheme on the landscape and views across the Green Belt.
			The landscape and visual assessment in Chapter 7 of the ES [APP-028] finds that the sense of openness of the Green Belt is already disturbed by the A1 and the ECML, but this would be further disrupted by demolishing the existing Allerdene Bridge and replacing it further to the south with either a bridge or viaduct. It also finds that the impacts during construction would be temporary and that during the operational phase, the Scheme would not represent a material change in the area of Green Belt as the original road alignment would be restored through woodland planting
			Planning Balance
			Section 5.5 of the Planning Statement [APP-171] addresses Planning Balance. Given the review of the "other harm" has not identified any other significant adverse or beneficial impacts the text with this section of the Planning Statement remains correct and does not need to be changed. The economic, social and environmental benefits of the Scheme include £251.1 million monetised benefits, an improvement in the visibility of the Angel of the North from vegetation clearance, and improvements in the water environment due to better treatment of run off, potential for reduction in noise at a small number of receptors, walkers, cyclists and horse riders (WCH) will also benefit from improved safety, accessibility and connectivity of routes resulting from reduced congestion.
Q1.0.6	Applicant	Work Nos. 10 and 12 of the dDCO [AS-012] provide for the construction of gas transfer station buildings for the benefit of. a) Please provide further details of the proposed scale and appearance of these buildings. b) How will the final design details of these proposed buildings be secured by the dDCO? Is additional drafting required to secure the design details.	a) Northern Gas Networks (NGN) Limited have submitted a planning application for the construction of the gas transfer station and formation of a vehicular access to the site (LPA Ref: DC/19/01256/FUL) which includes a description of the proposed buildings. https://myserviceplanning.gateshead.gov.uk/Planning/planning-documents?SDescription=DC/19/01256/FUL



Ref No: 1.0	Question to:	Question: General and Cross-topic Questions	Response:
		c) Explain how these buildings have been taken into account in the relevant Application assessments?	These plans were not available at the time the assessment in the ES was undertaken. Therefore, the Applicant made some assumptions regarding the proposed development as described in paragraph 2.7.46 onwards of Chapter 2: The Scheme of the ES [APP-023].
			b) Additional drafting should indeed be included in Requirement 3 of the draft DCO [APP-013] in relation to the design and external appearance of the gas transfer building. This is included in the updated draft DCO submitted at Deadline 2.
			However, it is also possible that construction of the gas transfer building could be constructed by or on behalf of NGN either pursuant to the express planning permission it has sought or in terms of Part 15 Class A permitted development rights. This class includes the installation of apparatus for controlling the flow of gas and the erection of a building for the protection of plant up to 15 metres in height. Approval of the details of the design and external appearance of such a building must be obtained before the development commences from the relevant planning authority. Requirement 3(3) of the draft DCO [APP-013] has therefore been drafted so that the requirement for the details of the gas transfer building are tied to the commencement of construction of the building as opposed to commencement of the Scheme. This avoids the need for the details to be submitted for approval in the event that NGN were to construct the building under permitted development rights. This is also consistent with the provisions of the permitted development rights.
			c) Chapter 2 The Scheme of the ES [APP-023] sets out a description of the Scheme. Paragraph 2.7.47 of Chapter 2 The Scheme [APP-023] describes the installation of a new Above Ground Installation (AGI) and District Governor (DG). These are referred to within the dDCO [APP-013] as gas transformer stations.
			All environmental disciplines scoped in to the EIA have assessed the Scheme as set out within Chapter 2 The Scheme of the ES [APP-023]. The buildings are of particular relevance to the Chapter 6 Cultural Heritage assessment of the ES [APP-027], the Chapter 7 Landscape and Visual assessment of the ES [APP-028] and Chapter 13 Road Drainage and the Water Environment assessment of the ES [APP-034].
			Impacts on the setting of the Lamesley Conservation Area (paragraph 6.8.18 of Chapter 6 Cultural Heritage [APP-027]) have been identified in relation to the NGN AGI and the Historic Environment Desk Based Assessment Appendix 6.1 [APP-118] assesses that the "temporary construction works associated with the AGI would result in minor harm to the setting of Lamesley Village Conservation Area during the construction phase and negligible harm during operation".
			The AGI has been considered in the landscape assessment with regard to its impacts on the landscape character, for both construction and operation, particularly of Local Landscape Character Area 1 – Team Valley (paragraph 7.8.9 of Chapter 7 Landscape and Visual [APP-028]). For the landscape assessment, the impact of the construction of the gas transfer station or Above Ground Installation (AGI) has been identified within



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			the construction period, identifying that construction activity and associated plant would be similar to that used to construct the modifications to the A1 and represent a new urbanising feature within the landscape, to the north and particularly the south of the A1. This would be perceived alongside the temporary compounds required for the construction of the A1 modifications. The impacts of the AGI during the operational phase have been assessed in that the building forms would represent a new feature of the landscape. This identifies the buildings as being out of character with the rural landscape, but also identifies that the removal of the existing AGI site to the north of the existing A1 would have some localised beneficial impacts.
			Similarly, the assessment of visual effects has identified where impacts of the decommissioned AGI and construction of a new site would affect the occupants or users of visual receptors, including residential, PRoW and other receptors, both during the construction and operation periods, and how proposed mitigation would provide screening in combination with the mitigation measures identified as part of the Scheme.
			The AGI has been assessed within Chapter 13 Road Drainage and the Water Environment assessment of the ES [APP-034] where it is referred to "the NGN site". Flood risk in relation to the NGN site is discussed in paragraph 13.9.22 and surface water in 13.9.25, 13.9.15 and in the assumptions under 13.5.1. With regard to flood risk, the assessment stated that "the NGN site" is located outside of the 1 in 100 year plus 50% climate change floodplain for the Allerdene viaduct option. Whereas for the Allerdene embankment option there is a small area of ponding within the centre of "the NGN site" which has maximum flood depths of 50mm, this would be addressed through detailed design of the platform with appropriate slab levels, cut of drain and optimisation of the design of the relocated section of the Allerdene Burn". With regards to surface water, a surface water drainage strategy will be developed for the relocated NGN site during the detailed design. The surface water strategy will "ensure that discharge rates do not exceed the greenfield rates and will require new outfalls to the relocated Allerdene Burn". There will be no impacts on water quality.
Q1.0.7	Applicant	Paragraph 2.7.49 of the ES [APP-023] explains that the existing NGN Regulator building would be demolished. Whilst it is stated in paragraph 2.7.46 of ES Chapter 2 that the diversion works would be undertaken by NGN, clarification is requested on who would be responsible for the demolition of the Regulator building and how this would be secured through the dDCO?	The details of how the diversion works (including demolition) would be undertaken are under discussion between the Applicant and NGN. In relation to demolition, the "coda" to Schedule 1 of the draft DCO [APP-013] includes within paragraph (xxii) the power to undertake works of demolition in relation to the diversion works. Article 9 of the draft DCO [APP-013] also allows the undertaker to transfer the benefit of the provisions of the order to NGN for the purposes of undertaking Works Nos. 9, 10, 12, 13, 15, 15 and 16. This means that NGN would also be able to carry out the diversion works (including demolition of the regulator building) through the powers of the DCO. Alternatively, if the demolition works are carried out by NGN, then they would be able to carry these out pursuant to their permitted development rights (see above).



Ref No: 1.0	Question to:	Question: General and Cross-topic Questions	Response:
Q1.0.8	Applicant	Paragraph 2.7.6 of the ES [APP-023] and paragraph 2.4.3 of the Statement of Reasons (SoR) [AS-014] explain that ground investigation work has led to the inclusion within the scheme of two alternative solutions for the replacement Allerdene Bridge. These documents go on to say that both options include ground improvement to mitigate settlement and that both are acceptable engineering solutions. a) If both options are capable of ground improvement to mitigate settlement and are acceptable engineering solutions, what are the factors that mean a decision cannot be made now on the preferred option? b) What are the key factors that would be used to determine which option to construct? c) Please provide a table showing the differences in the mitigation required for each option. d) When (in relation to the overall planning and construction programme) is it proposed that a decision would be made on which option will be pursued?	a) The ground investigation work undertaken to date identified the potential risk of significant ground settlement beneath the new approach embankments to the Allerdene Bridge if no mitigation works are implemented. Two different approaches to managing the risk have been developed during preliminary design, the single span bridge (Embankment Option) and the 6/7 span viaduct (Viaduct Option). Once the main contractor is appointed, they will undertake detailed design and further ground investigation work will be required to inform this design and better understand the ground conditions and impact this has on the Allerdene Structure and the main contractor's methodology of construction and programme. If a decision is made now ahead of this further assessment and detailed design, there is a risk that currently unknown conditions that arise during their work could result in cost or programme implications for the option being developed, which are likely to be substantial for this part of the Scheme in proportion to the overall cost. Flexibility is therefore required to ensure the option constructed is fully developed and minimises any disruption to the travelling public and residents and provides best value for money with minimal differences in environmental effects identified between the options. b) Chapter 9 Geology and Soils of the ES [APP-030] confirms there is little difference in the assessment of the impact of the Embankment Option and the Viaduct Option and the experience of the road user will be the same regardless of which structure is constructed. The key considerations will therefore focus on potential engineering issues with regard to the actual construction of the structure. This will be developed through detailed design following ground investigations work to be undertaken in 2020 and any potential settlement that may incur following construction of the bridge. Consideration will be made of the mitigation measures that can be implemented that prevent any impact on ECML and the travelling public. The r
Q1.0.9	Applicant	Paragraph 2.7.45 of the ES [APP-023] explains the existing utilities apparatus located adjacent to the Eighton Lodge North underbridge earthworks would need to be moved. Please provide details of where such apparatus would be moved to and set out the progress that has been made towards agreement of such works with the relevant statutory undertaker(s).	The engagement to date with Statutory Undertakers has been in accordance with the New Roads and Street Works Act (NRSWA) 1991. Existing apparatus has been identified, budget estimates to divert / protect the apparatus have been obtained and preliminary discussions have been held with the relevant organisations. Where this has identified that the diversions required would be complex, further discussions have been held to refine the estimates and define diversion routes which have been shown on the Works Plans [APP-007] and defined within paragraph 4.10.1 of 4.1 of the



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			Statement of Reasons [APP-016]. Where the discussions identified that the diversions would not be complex, they are to be progressed further during detailed design. At this stage we cannot confirm the exact locations of where the apparatus, which is normal at this stage in a Scheme. However, where particularly significant infrastructure is known, this is addressed by the Application specifically – notably, this in the case of NGN and Northumbrian Water Limited where their apparatus is addressed by Scheduled Works.
Q1.0.10	Applicant	Table 2-5 (Main phases of construction work) of the ES [APP-023] includes start and end dates including for the 'demolition of existing Allerdene Bridge' (Area 2) and 'removal of existing Allerdene Bridge and Approaches' (Area 7). What are the differences between these two components of work? Explain how both components of work have been assessed in the ES?	The package of works described as "Area 2" comprises the works that are required on the ECML initially to provide support to the catenary system so that the existing bridge can be demolished later in the construction period in Area 7. The Area 2 works entail provision of new posts on new foundations to support the overhead power cable on the ECML which will replace the hangers on the existing bridge. Area 7 enables the removal of the existing Allerdene Bridge beams and deck and the approaches to the existing structure. The areas are shown on the drawing at Appendix 1.0 D. All environmental disciplines scoped in to the EIA have assessed the Scheme as set out within Chapter 2 The Scheme of the ES [APP-023]. Therefore, the works comprised in both Area 2 and 7 (the demolition and removal of Allerdene Bridge) are assessed in the ES. The specific topic assessments are set out Chapter 5 to 14 of the ES [APP-026 – APP-035]. It is noted that works to the catenary system would be unlikely to impact on the environment whilst it is anticipated that there would be impacts as a result of works at Area 7; this is reflected in the assessment of impacts which reports potential significant effects e.g. noise, as a result of works at Area 7.
Q1.0.11	Applicant and Gateshead Council (part c only)	Paragraph 3.2.1 of the outline CTMP [Appendix B of APP-174] states that standard working hours will be Monday to Friday from 7.00am to 19.00pm. However, paragraph 1.3.12 of the outline CEMP and Requirement 4 of the dDCO [AS-012] also refer to hours of work between 07.30 and 13.00 on Saturdays. a) Does the outline CTMP need to be updated to resolve this discrepancy? b) Please provide an explanation for the extent of the standard working hours proposed including the reasons why they would extend beyond normally recognised construction hours. c) Does the Council agree with the proposed standard construction hours? If not, please provide reasons for any disagreement.	a) The following hours of work will be adhered to on site: Weekdays: 07.00 – 19.00 Saturdays: 07.30 – 13.00 There will be no working on Sundays, Bank and Public Holidays (except in each case for works relating to the replacement of Allerdene Bridge for which possessions of the ECML are required). Where works are required to be carried out outside these hours this would be agreed in writing in advance with the local authority as the relevant planning authority (other than where such works are associated with an emergency). Deliveries to the Scheme would be programmed to arrive and depart on site within the described working hours, as set out in the Outline CEMP [APP-174]. However, as deliveries will arrive and depart from a range of locations deliveries will be on the road network outside these hours to ensure time available to work on site is maximised.



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			As provided in the Outline CEMP [APP-174], workers will be required to be on site from 07:00 in the morning and will depart up to 19:00 on an evening during the week and 07:30 and 13:00 respectively on a Saturday. Commuting trips will take place outside of the working hours, which is provided.
			The Applicant does not expect that there would be significant volume of traffic on the network associated with the Scheme outside of the hours of work described above. No further changes would be made to the CTMP as a result.
			b) The working hours were selected to allow the main contractor as much flexibility as possible during construction of the Scheme. Gateshead Council has confirmed in the Statement of Common Ground (SoCG) with the Applicant that these hours are acceptable.
Q1.0.12	Applicant	Some works are proposed to take place outside of the standard working hours. For example, works in connection with the East Coast Main Line [Paragraph 1.3.12 of APP-174]. a) Where such works are expected to take place, would this also involve Heavy Duty Vehicle (HDV) movements outside of standard hours?	a) It is expected that work outside standard working hours would involve Heavy Duty Vehicles (HDV). This primarily relates to works relating to the replacement of Allerdene Bridge for which possessions of the ECML are required. It is anticipated that the demolished bridge sections would be lifted out and placed upon Self Propelled Modular Transporters (SPMT) sat upon the disused section of the A1 and driven to an area for unloading and demolishing.
		b) What measures would be put in place to minimise disturbance of any such HDV movements on local residents and how would these be secured?	It should be noted that (as explained above) these operations will take place either over a series of weekend possessions or in a more concentrated effort during closures of the railway associated with other major engineering work.
			b) A number of measures contained within the Outline Construction Environmental Management Plan (Outline CEMP) [N5] (APP-174) would be of particular relevance to the operation of HDVs outside standard hours as follows, which are quoted from the Outline CEMP (N5):
			Guidance given in BS 5228-1 (Section 8 - Control of noise and Annex B (Ref 1.8) - Noise sources, remedies and their effectiveness) will be followed and advice and training on noise minimisation given to staff during site induction procedures.
			 All plant brought on to site will comply with the relevant European Commission (EC)/UK noise limits applicable to that equipment or should be no noisier than will be expected based on the noise levels quoted in BS 5228-1. Each plant item will be well maintained and operated in accordance with manufacturers' recommendations and in such a manner as to minimise noise emissions.
			 Deliveries to site will be programmed and routed to minimise disturbance to local residents. Plant and equipment will be noise reduced / lowest noise emission models e.g. within the lower range of expected noise emission levels based on the example data contained with BS5228-1 (Ref. 1.8) whilst remaining fit for purpose. Care will be taken for works required during out-of-hours/night-time periods, e.g. as associated with the formation of the new Allerdene Bridge and removal of the existing Allerdene Bridge, where night-time rail possessions are anticipated to be required.



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			 Temporary acoustic barriers and other noise containment measures such as screens, sheeting and acoustic hoarding at the site boundary (and where required around individual plant) will be erected where appropriate to minimise noise breakout and reduce noise levels at potentially affected receptors.
			 There will be a considerate and neighbourly approach to relations with local residents with particular care given to the timing and regularity of works that are undertaken within any one area. For example, appropriate periods of respite will be allowed where the generation of high noise levels is unavoidable e.g. due to the proximity of works.
			 For out-of-hours/night-time works that are programmed for the formation of the new Allerdene Bridge and removal of the existing Allerdene Bridge (where rail possessions are anticipated to be required), local residents will be provided with advanced notice via means of a local letter drop, public notice or other such communication.
			 A construction noise monitoring programme will be undertaken for all out-of-hours work that is to be undertaken for the installation of the new Allerdene Bridge and the removal of the existing Allerdene Bridge. This programme will include an active feedback loop to the construction contractor by means of a visual or alert based system allowing live monitoring of compliance with appropriate construction noise criteria.
Q1.0.13	Applicant	Paragraphs 2.9.15 and 2.9.16 of the ES [APP-023] set out the proposals for construction and working compounds. a) Please provide further details of how the choice of locations for these compounds was determined including any alternative locations that were considered. b) A representation has been made [RR-019] suggesting an alternative construction compound location near Junction 66. Was this location taken into account in the consideration of compound locations and would it provide a suitable alternative location for a construction compound?	a) Analysis was undertaken of potential compound locations to determine the most appropriate compound sites. The assessment considered a number of factors that determine the suitability or otherwise of each location. These are: size, topography and site features of the location, the means of access and egress to the highway network, the distance and journey times from compound to site, the presence of locally available services, the current land use and availability and the proximity to sensitive stakeholders such as residential properties and schools. A copy of the report prepared on behalf of the Applicant with regard to alternative sites for construction compound locations is at Appendix 1.0 E. The two finally selected construction sites are: Junction 67 (Coal House) – this location can be accessed off Lamesley Road where visibility lines for access and egress are good. It has an available area with suitable topography. Service connections for power, telecoms and water are available close to the location. Journey times from this location to the start of the southbound highway works at Junction 67 (Coal House) is approx 0.2 miles. The site has easy access to
			works at Junction 67 (Coal House) is approx. 0.2 miles. The site has easy access to the proposed work at Allerdene Bridge and associated works. The second main compound location is positioned to the east of Junction 66 (Eighton Lodge) and has good access and egress off the B1296 and is positioned centrally to the Scheme and the land has suitable topography. Service connection for water, power and telecoms are available close to the location.



Ref No: 1.0	Question to:	Question: General and Cross-topic Questions	Response:
			b) Please refer to Appendix 1.0 E which describes the eight alternative locations for compounds that were considered and the reasons why those not selected were discounted, including the alternative location referred to in RR-019.
Q1.0.14	Applicant	Paragraph 2.9.66 of the ES [APP-023] explains that on completion of the construction of the scheme the construction compounds would be demolished and reinstated to the existing condition. a) Can the Applicant set out in more detail what the proposed approach is for the reinstatement of the construction compounds and how this, along with necessary mitigation and enhancement measures, would be secured by the dDCO? b) Would this approach also be applicable to the two proposed working compounds as well as the two proposed construction compounds?	 a) Refer to Table 3-1 PH5 of the Register of Environmental Actions and Commitments (REAC) of the Outline CEMP [APP-174] which sets out "All areas temporarily required for construction will be reinstated to reflect their former vegetation cover, unless otherwise stated on Figure 7.6 Landscape Mitigation Design" [APP-061]. This is secured by Requirement 4 in the dDCO [APP-013]. b) Yes. This is equally applicable to proposed working compounds as to proposed construction compounds.
Q1.0.15	Applicant, Gateshead Council, Sunderland City Council and Newcastle City Council	A long list and short list of proposed developments used to assess cumulative effects are presented in Appendices 15.1 [APP-167] and 15.2 [APP-168] of the ES. a) Have these lists been agreed with the relevant local authorities? b) Have any more relevant proposed developments been identified since the drafting of these documents?	 a) The long list was issued to Gateshead Council via email for comment on 24th October 2018 and a follow up email on 18th December 2018. No response was received. The Applicant is seeking to agree this point as part of the SoCG with Gateshead Council. b) A planning application search was undertaken in February 2020 to confirm if any new developments might be appropriate for inclusion within the Cumulative Assessment (although it should be noted that by convention the point at which this is ordinarily assessed is upon application). Based on the assessment methodology detailed in Chapter 15: Cumulative and Combined Assessment of the ES [APP-036] and using the same study area (2km) two additional developments are to be considered. These are as follows: (ID 1) Planning Application Reference: 19/01484/FU4 - Construction of 56 dwelling houses and associated infrastructure. Located approximately 1.7km from the A1 Birtley to Coal House Scheme. (ID 2) Planning Application Reference: 2018/0440/01 - Erection of student accommodation in two buildings 8-12 storeys high comprising 535 bed spaces within a total of 162 apartments (75 class C3, 87 class C4). Located approximately 4.4km from A1 Birtley to Coal House Scheme. For both Planning Applications: ID 1 and ID 2, during the construction phase, there is the potential for cumulative effects related to the demand for materials for construction and waste disposal (i.e. waste exceeding local land fill capacity) associated with the Scheme. The potential cumulative effects are considered to be minor adverse significance (i.e. not significant). During operation, there are no significant cumulative effects from Planning Applications



Ref No: 1.0	Question to:	Question: General and Cross-topic Questions	Response:
			ID 1 and ID 2 associated with the Scheme.
Q1.0.16	Applicant	Long List ID nos.17 and 18 of the Long List of Proposed Developments [APP-167] are missing from the schedule. Please provide an updated document to rectify this. Can the Applicant also confirm that these two proposed developments (nos. 17 & 18) were included within the cumulative impact assessment?	This omission results from a document production error. The full long list of Proposed Developments is now provided as an appendix to the response to Written Questions. We can confirm that developments 17 and 18 were included in the assessment and appropriately taken into account in accordance with the methodology.
Q1.0.17	Applicant	Table 15-9 (Matrix of combined effect interactions) of the ES [APP-036] states that the combined effect from construction upon residents would be of minor significance. a) Please provide further explanation of how the combined effects have been assessed. b) Would the combined impact upon residential receptors not vary depending on factors such as their proximity to certain areas of works? How have such variations been taken into account in the combined effects assessment?	 a) The approach to the assessment of combined effects considers changes in baseline conditions at common sensitive receptors i.e. those receptors that have been assessed by more than one technical topic. This assessment has been made using professional judgement and technical information provided within the ES chapters. The methodology on the Combined Assessment is set out in Section 15.4: Assessment Methodology, in particular, paragraphs 15.4.29 - 15.4.30 and Table 15-5 of Chapter 15 Cumulative and Combined Assessment [APP-036] and outlines how the Cumulative Assessment determines significance of effect. As described in Table 15-5, minor effects are described as effects that are locally significant. b) Variations of this type were inherently taken into consideration within the Combined Effects assessment but were not distinguishing factors to present an overall combined significant effect. The Combined Effects assessment draws upon the impacts described upon various receptors within each relevant environmental topic. Within each of the environmental topics, the impact upon, for example local residents has been considered in light of a defined study area and/or zone of influence. As such, the spatial variation of impact has been previously assessed in each technical chapter. The Combined Effects assessment considers the overall impact of all the potential impacts to those receptors (i.e. residents) thus captures this variation within the assessment.
Q1.0.18	Applicant	ES Appendix 4.3 [APP-105] describes the 'risk' of events occurring, although doesn't appear to explain how in this context risk relates to significance. The Applicant is requested to provide further clarity on this matter and explain how the findings of the major accidents and disasters assessment in relation to risk, demonstrate no likely significant effects?	Appendix 4.3 Major Accidents and Disasters Assessment Report of the ES [APP-105] assesses the vulnerability of the Scheme to the risk of a potential event which might lead to a major significant environmental effect, i.e. it is not an event that will definitely happen, see Section 2.4 of Chapter 2 The Scheme [APP-023] and definition of Major Event in Table 7-1 of Chapter 7 Landscape and Visual of the ES [APP-028]. In summary, Major Events are potential rare events (see para 2.4.8 of Chapter 2 The Scheme of the ES) that if they were to occur would have a major significant effect (see para 2.4.10 of Chapter 2 The Scheme of the ES). Therefore, provided that the risk of occurrence is as low as reasonably practicable (ALARP) then the potential event should not occur and therefore is no adverse effect (significant or otherwise) under normal reasonably foreseeable conditions. Appendix D to Appendix 4.3 Major Accidents and Disasters Assessment Report of the ES [APP-105] indicates for each potential Major Event considered the reasonable worst case consequences (column "Worse case consequences if it did occur and receptors") if the potential initiator (column "risk description") were to occur and why it



Ref No: 1.0	Question to:	Question: General and Cross-topic Questions	Response:
			is ALARP (columns "Is this ALARP." and "Clarification").
Q1.0.19	Applicant	The ExA notes that updates have recently been made to the Design Manual for Roads and Bridges. Please provide a review of these changes where relevant to this application for Development Consent and set out the implications for, and any updates of the assessments	A table is attached as Appendix 1.0 G to these responses, setting out the following information: The relevant Environmental Statement (ES) Chapter number. Reference within the chapter to design manual for roads and bridges (DMRB)
		provided, in the ES.	guidance including associated interim advice notes (IANs).
			Reference to the updated DMRB guidance and IANs where applicable.
			Implications for/updates required to the environmental assessment of the Scheme for it to be compliant with the updated DMRB guidance.
			In summary, the conclusion of this review is that the updated DMRB guidance has the potential to change the significant effects reported and require updates for the following topics:
			 Biodiversity/air quality; Changes to the advice on ecological assessment will introduce additional areas into the assessment, including local nature reserves and ancient woodland. Further nitrogen deposition changes would require assessment where previously they were screened out. In order to assess the risk of a change in significant effects a two stage process would be undertaken, first to screen the additional sites identified and second to complete a detailed assessment of those screened in. The additional work identified will be undertaken for a subsequent deadline.
			 Geology and soils; This is due to the permanent loss of agricultural land which under the updated guidance would be report a minor effect for Best and Most Versatile (BMV) land and a moderate (or significant effect) for non-BMV. This contrasts with minor significance for BMV and negligible significance for non-BMV (both non- significant) in the assessment recorded in the ES.
			Water; As part of the HEWRAT there is now an expectation to use background dissolved copper and zinc concentrations to look at the total risk. This requires further works to quantify the risk and impact of mitigation. The additional work identified will be undertaken for a subsequent deadline.
			Some other disciplines, including noise and vibration, have identified additional work that would be required to update the assessment in line with DMRB. However, it is thought that the application of the updated DMRB guidance would not result in any consequential changes to the conclusions of the ES and a revised assessment would not be justified.
Q1.0.20	Applicant and QE Facilities Limited	QE Facilities Limited [RR-008] have requested that signage for the Queen Elizabeth Hospital is incorporated into the scheme at Junction 66.	Queen Elizabeth (QE) Hospital has been in contact with the Applicant to request the QE Hospital be included as a destination at junction 66 (Eighton Lodge). During the development of the preliminary design, the direction signs proposals for the Scheme were reviewed and the practicality of including the QE Hospital as a destination was



Ref No: 1.0	Question to:	Question: General and Cross-topic Questions	Response:
		The Applicant, in liaison with QE Facilities Limited, is requested to assess the feasibility of including such signage within the scheme.	Considered. The Applicant's signage strategy defines the destinations to be used on direction signs and at junction 66 (Eighton Lodge) the existing sign is already at the maximum number recommended by standards. An increase in the number of destinations would reduce the legibility of the sign and divert driver's attention away from the road. This would be in a location where it is particularly important for drivers to be focusing on the road layout due to the junctions following in quick succession, the number of lanes reducing after a junction and would reduce the safe operation of the network. The close spacing between junctions also restricts the space available for additional signs. The review of the direction signs proposals concluded that in this area of the A1 further destinations or signs could not be included safely. Section 10 'Road Network' of Annex N, Table 26 of the Consultation Report [APP-019] confirms that QE Hospital have been advised of this decision and that the Applicant will consider the direction signs further at detailed design once the main contractor is appointed. However, any changes to the decision to not include the signage, would require amendment to the Applicant's signage strategy and the demonstration that it could be undertaken without undue impact to the safe operation of the road.
Q1.0.21	Applicant	Paragraph 14.9.2 of the ES [APP-035] lists mitigation measures for the effects of the scheme on climate and Table 14-13 (referred to in paragraph 14.9.4) lists the adaption measures that would be integrated in response to the vulnerability of the scheme to climate change. For both sets of measures, please confirm how each measure listed would be secured and implemented through the dDCO.	Measures to mitigate the generation of Greenhouse Gases (GHG) that have been committed to by the main contractor and the Applicant are included in the Outline CEMP (Outline CEMP) [APP-174] for the Scheme. Measures associated with the minimisation of waste and maximising re-use of materials on site would be incorporated into the CEMP, Site Waste Management Plan (SWMP) and Material Management Plan (MMP) for the Scheme. Further details are provided in Chapter 10 Materials of the ES [APP-031]. As the assessment states that the Scheme is expected to have slight adverse (not significant) effects, mitigation measures are not required but are recommended as best practice. Mitigation measures secured and implemented through Requirement 4 contained in the dDCO [APP-013], which secures the CEMP and Vulnerability of the Scheme to Climate can be seen in Appendix 1.0 B.



Table 1.2 – Applicant's Responses to the ExA's First Written Questions - Air Quality and Emissions

Ref No: 1.1	Question to:	Question: Air Quality and Emissions	Response:
Q1.1.1	Gateshead Council and Sunderland City Council	The Applicant's air quality assessment is set out in Chapter 5 of the ES [APP-026]. Do the Councils agree with the impacts scoped out of the assessment in paragraphs 5.4.8 and 5.4.9?	
Q1.1.2	Gateshead Council and Newcastle City Council	Included within Table 5-3 of the ES [APP-026] there is reference to the UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations. It states that Newcastle City Council and Gateshead Council have been directed to undertake feasibility studies in relation to measures to deliver compliance with EU limit values and that such work is ongoing. The Councils are requested to provide an update on the progress of this work and explain what, if any, relevance it may have for the Examination of this application?	
Q1.1.3	Applicant	Paragraph 5.4.5 of the ES [APP-026] explains that the worst year from opening is the opening year itself, as it is anticipated that improvements in vehicle emission rates will offset the impact of growth in vehicle numbers over time. This is further referred to in paragraphs 5.5.2 and 5.5.3 which recognise that in future years uncertainty relates to the projection of vehicle emissions, in particular the rate at which the emissions per vehicle will improve over time. a) Please provide further justification including details of relevant evidence for the assumption that improvements in vehicle emission rates will offset the impacts of vehicle number growth. b) What confidence can there be that vehicle emission rates will offset the impacts of growth in vehicle numbers to the extent considered in the ES?	The response to both part a and b of this question essentially relates to i) Are vehicle emissions decreasing over time? ii) Will any decrease continue in the future? iii) How does the expected decrease in emissions over time compare to the expected growth in traffic with the Scheme. In response to point i) - As shown in Table 5-7 of Chapter 5 Air Quality of the ES [APP-026], there is a monitored decreasing trend in annual mean concentrations of NO2 over time within the assessment area considered for the Scheme. There is no corresponding overall marked decrease in traffic over this period in the North East region (https://roadtraffic.dft.gov.uk/regions/11) and, therefore, there is evidence for a decrease in emissions per vehicle. ii) On-road/in service vehicle emissions tests demonstrate that the newest vehicles (Euro VI) are lower emitting than older vehicles e.g. It is reasonable to assume that there will be an ongoing turnover in the fleet, with old vehicles replaced with new vehicles and this will result in an ongoing decreasing trend in emissions. Moreover, this applies whether or not any ingress of electric vehicles into the fleet is assumed. iii) Overall, the Scheme is projected to result in an increase in vehicle-kms travelled of <0.5% per year. This is markedly lower than the projected decrease in NOx emissions (33% between opening and design year, ~2% per year) (Table 5-13 of Chapter 5 Air Quality of the ES). Therefore, in response to point a), the justification for the assumption that improvements in vehicle emission rates will offset the impacts of vehicle number growth is that: emissions per vehicles are demonstrably decreasing over time, this trend can be expected to continue in the future as newer vehicles enter the fleet and the rate of decrease in emissions is greater than the rate of increase in traffic flows. In response to point b), the anticipated rate of decrease in emissions per year is over 4



Ref No: 1.1	Question to:	Question: Air Quality and Emissions	Response:
			conclude with confidence that the opening year will be the worst for air quality, even allowing for uncertainty in the rate of improvements.
Q1.1.4	Applicant	Paragraph 5.4.9 of the ES [APP-026] explains that a full assessment of construction traffic impacts has been scoped out due to vehicle generation being below the relevant Design Manual for Roads and Bridges HA207/07 criteria. Appendix 5.2 (Construction Traffic Assessment) [APP-108] sets out the expected construction traffic generation flows. The Allerdene embankment option would result in a traffic flow of 172 HDVs per day on Link WO9. a) What measures would be in place to ensure that these predicted construction traffic flows do not significantly increase beyond the figures in this table, particularly HDVs on Link W09? b) Please provide an explanation of how these construction traffic flows have been calculated.	 a) The estimation of movements is based on material being imported and exported to/from the Scheme. Management of HDVs on site will be planned and monitored by the contractor so that vehicle movements along all construction site access routes are minimised (and remain below the 200 AADT threshold set out within DMRB HA 207/07 – these criteria remain the same within the updated DMRB guidance document, LA105) and aligned to the programme of delivery for each phase of work. The Construction Traffic Management Plan (see Appendix B of the CEMP [APP-174]) will be a live document. As such, traffic generation and routing will be subject to ongoing review through the construction period. If overall vehicle numbers or those on individual routes risk exceeding the projected numbers, then the plan will be reviewed to assess what measures can be put in place to alter routing, consolidate deliveries, or reduce traffic generation. For link W09, vehicle movements will be scheduled such that they remain below the 200 AADT limit – this will be monitored at each site access point. Where the number of daily movements approach the criteria level, measures to reduce flows will be implemented – these may include giving priority to HDVs accessing the site via the northern access points, the consolidation of delivery trips, and re-scheduling of trips. b) Section 3, para 3.1.2 of the Construction Traffic Management Plan sets out how the construction traffic flows were derived.
Q1.1.5	Applicant	Paragraph 5.4.10 of the ES [APP-026] explains that an assessment of dust impacts from construction activity has taken into account the number and proximity of potentially sensitive receptors within 200m of the Scheme footprint. a) Given the large number of receptors that potentially could be impacted upon during construction, please explain in further detail how construction works would be monitored along with how any necessary enforcement could be practicably implemented to ensure that no significant adverse effects would arise.	The construction mitigation measures for dust are detailed within the Outline CEMP [A1] [APP-174]. The implementation of mitigation measures set out in paragraph 5.9.4 of Chapter 5 Air Quality of the ES [APP-026] is generally sufficient to ensure that no significant adverse effects would arise. This includes practical measures, such as wheel washing facilities to reduce track out of dust, as well as monitoring. The Outline CEMP makes allowance for increasing frequency of application of measures or indeed ceasing work if dust emissions cannot be appropriately controlled. As set out in section 5.12 of Chapter 5 Air Quality of the ES, monitoring would, in the first instance, be limited to a daily visual inspection of emissions-generating activities and/or dust soiling of local roads. Should this visual inspection result in persistent soiling, or if risk levels should rise (i.e. during prolonged dry weather/prolonged increase in emissions-generating activities), it will be necessary to install continuous monitoring of particulate matter – these should be equipped with an alert mechanism to indicate periods of elevated concentrations of particulate matter.
Q1.1.6	Applicant	Air quality baseline conditions are set out in Section 5.7 of the ES [APP-026]. The baseline year is 2017. Highway England Monitoring for scheme specific diffusion tube monitoring data is set out in Appendix 5.8 [APP-114] and is dated 2015.	a) The baseline for the assessment was based on the most up to date information available at the time of writing (i.e. representing 2017 annual mean data). At the time of writing, the latest published annual status report from Gateshead Council (released in June 2019 with annual mean concentrations from 2018) provides an additional 1 year of monitoring not considered within the Section 5.7 Baseline



Ref No: 1.1	Question to:	Question: Air Quality and Emissions	Response:
		 a) Given the time that has elapsed since this baseline data was recorded, can the Applicant provide justification as to why this data is appropriate to be relied upon? Is there any more recent survey data for air quality which may be more appropriate to use? b) Does an allowance need to be made for any baseline data that may have changed between 2017 and 2020? 	Conditions of Chapter 5 Air Quality of the ES [APP-026]. These data are consistent with the monitoring trends outlined within the baseline section of the ES. No Scheme specific monitoring has been undertaken or was necessary in the intermediate years given the availability of monitoring from local authorities.
Q1.1.7	Applicant	Paragraph 5.8.12 of the ES [APP-026] states that six properties are predicted to experience an increase in pollutant concentrations. Table 5-5 shows that for 'small' impacts the significance of such effects would be based on the number of receptors affected. a) Explain further the criteria that has been used to determine that an increase of between -0.4 and 2 ug/m3 annual mean NO210 should be considered as amounting to 'small magnitude'? b) What is the justification for using the number of receptors (30 to 60 in this case) to determine whether or not there is a significant effect? Does this risk downplaying the weight to be given to the potential effects on the quality of life of the occupiers of residential properties who could suffer adverse air quality effects as a result of the scheme?	 a) The six properties quoted within the response are all modelled to experience concentrations below the annual mean standard for NO₂. As such, under the guidance set out in IAN 174/13, these properties are not included in any assessment of significance, as set out in Table 5-5 of Chapter 5 Air Quality of the ES [APP-026]. These criteria have been taken from Highways England's Interim Advice Note 174/13. This guidance has been carried over in the equivalent updated Design Manual for Roads and Bridges (DMRB) guidance document for Air Quality, LA105 and is shown in Table 2.92N. There is no change to the result of the assessment of significance for the overall air quality effect with the updated guidance. The magnitude of the change criteria are set as a percentage of the relevant air quality threshold (i.e. a small magnitude of change for annual average NO₂ would be between 1% and 5% of 40μg/m³ i.e. 0.4μg/m³ to 2μg/m³). Within the note, Highways England state the approach to describing these changes in the IAN are "based around Defra's published advice in TG (09) on the desirability of achieving 10% verification (between modelled and monitored concentrations) where concentrations are close to or above the air quality threshold". b) Since the air quality standards are set to be protective of human health, restricting the assessment of significance to properties at which the standards are exceeded does not risk downplaying the potential effects on the quality of life, irrespective of the number of properties affected.
Q1.1.8	Applicant	Paragraph 5.8.20 of the ES [APP-026] sets out the regional impacts stating that the scheme would result in an increase in emissions of all pollutants. Please provide further details of these impacts including how the significance of effect of the predicted increases have been determined.	The significance of air quality effects is considered at a local level, as set out in IAN 174/13 – further detail of the impacts are set out in section 5.8, Chapter 5 of the ES [APP-026]. There are no significance criteria relating to regional emissions, and this is not assessed within the ES nor is it required under IAN 174/13 to inform the professional judgement of the significance of the effects due to the Scheme. The values presented within Table 5-13 - Chapter 5 Air Quality of the ES give the total emissions from modelled links within the air quality study area for each assessed period. These data are used within the WebTAG calculations.
Q1.1.9	Applicant	The construction mitigation measures set out in paragraph 5.9.4 [APP-026] of the ES appear to be more comprehensive in certain respects than those set out on page 14 of the CEMP [APP-174]. Please review the list in the CEMP to ensure consistency	Please see Appendix 1.1.A in response to this question.



Ref No: 1.1	Question to:	Question: Air Quality and Emissions	Response:
		with the ES.	
Q1.1.10	Applicant	Paragraph 5.9.5 of ES Chapter 5 [APP-026] states that traffic management measures will be required during the construction phase and that details of these are included within Appendix 5.2 [APP-108]. However, Appendix 5.2 does not include such measures. Please clarify this and set out the details of the proposed traffic management measures required during the construction phase?	a) Appendix B, Construction Traffic Management Plan of the Outline CEMP, [APP-174] presents the traffic management measures for construction related traffic. At present, construction traffic does not trigger any criteria for further assessment in terms of air quality impacts. The management of HDVs on site will be planned and monitored by the main contractor so that vehicle movements along all construction site access routes are minimised (and remain below the 200 AADT threshold set out within DMRB HA 207/07 and the updated guidance document LA105). Traffic generation and routing will be subject to ongoing review and monitoring through the construction period. If overall vehicle numbers or those on individual routes risk exceeding the projected numbers, then the plan will be reviewed and measures put in place to alter routing, consolidate deliveries, and/or reduce traffic generation as necessary. Appendix 11.12 Construction Phase Traffic Diversions [APP-156] of the ES presents the details of the traffic management measures relating to diversions which would need to be implemented as the Scheme is constructed throughout the programme. Further traffic management measures, including the layout of temporary traffic management, would be designed and developed by the contractor in accordance with Traffic Signs Manual following the DCO being made.



Table 1.3 – Applicant's Responses to the ExA's First Written Questions - Biodiversity, Ecology and Natural Environment

Ref No: 1.2	Question to:	Question: Biodiversity, Ecology and Natural Environment	Response:
Q1.2.1	Applicant and Natural England	The Consents and Agreements Position Statement [APP-015] states that a licence under section 16 of the Wildlife and Countryside Act 1981 will be necessary in relation to roosting bats with associated mitigation and compensation requirements at Eighton Lodge South Underbridge. A draft licence application has been submitted [APP-136] and a Letter of No Impediment is anticipated to be provided during the Examination. Can the Applicant and Natural England provide an update on the progress made towards obtaining a Letter of No Impediment?	A draft application for a licence under s.16 Wildlife and Countryside Act 1981 in relation to roosting bats was submitted to Natural England during September 2019. Natural England requested further clarification, information and a modification of figures on 25 th October 2019, with liaison continuing pass this point. Clarification was provided of bat surveys completed specifically on -NGN land within the Scheme Footprint, location of compensation features and clarification of timings of works. This information was provided to Natural England for their consideration between 25 th October 2019 and 3 rd January 2020. Natural England has requested the submission of a reasoned statement document on 13 th February 2020. This is yet to be issued to Natural England. Since that time the Applicant has requested a Letter of no impediment and Natural England is considering the application. A decision will be made once the Reasoned Statement is submitted by the Applicant and has been assessed by Natural England.
Q1.2.2	Applicant and Gateshead Council	Paragraph 8.4.19 of the ES [APP-029] states that ongoing liaison is being undertaken with Gateshead Council's ecological representatives to discuss the finalised Landscape Mitigation Design in Figure 7.6 of the ES [APP-061] detailing the landscape design relating to biodiversity mitigation. a) Both parties are requested to provide an update on the progress on this. In the view of the Council are there any outstanding matters needing to be resolved? b) How does the Landscape Mitigation Design relate to Requirement 5 (Landscaping) of the dDCO [AS-012]?	 The Reasoned Statement is expected to be submitted to Natural England imminently. a) The Applicant has involved Gateshead Council in the development of the Landscape Mitigation Design Figure 7.6 [APP-061] of Chapter 7 Visual and Landscape of the ES [APP-028], providing feedback and comments as set out in the Statement of Common Ground. During a stakeholder meeting on 12th March 2019 Gateshead Council's representative asked whether changes to the sustainable drainage system (SuDS) at Allerdene culvert could be considered. The Council's representative stated that the Allerdene culvert area could be made into a more natural setting, however the route is confined to the area shown on the plans, due to the location of the NGN site and the access road to Allerdene Bridge / Network Rail. The following design features are included within the Outline CEMP: Natural beds (between 100mm and 250mm) to maintain and assist fish passage and inclusion of baffles or similar structures installed within existing culverts [B3]; For both Allerdene embankment option and Allerdene viaduct option potential opportunities have been identified to improve the channel design and to provide enhancement to the river environment and morphology by, for example, inclusion of pools and riffles (or similar features to increase biodiversity) constructing a two-stage channel, adopting bioengineering techniques, such as rock rolls and mattresses, to maintain the channel profile and by re-vegetating the banks of the proposed channel realignment. These, and further potential



Ref No: 1.2	Question to:	Question: Biodiversity, Ecology and Natural Environment	Response:
			 enhancements, will be considered at the detailed design stage of the Scheme [w10]. Where new culvert inlets are required, naturalised design features will be utilised, if design allows. Measures such as avoiding planting at the openings to the culvert to increase natural light entering the internal space, and an inclusion of a layer of soil and debris within the culvert to create a natural bed to encourage use will be considered [W10]. A reduction in pollution road discharge and a reduced of rate of surface water runoff via the inclusion of oil interceptors, silt control, pollution control devices, and creation of attenuation ponds as detailed in the Outline CEMP [W4] [W5] [W7] [W1].
			A number of points have been raised in Gateshead Council's Written Representation [REP 1-005] which will be subject to further discussions.
			A meeting was held with Gateshead Council on Wednesday 19 th February 2020; however, the Council Ecologist was unable to attend, therefore, those matters could not be discussed, but it has been agreed to follow up.
			b) Figure 7.6 Landscape Mitigation Design of the ES [APP-061] sets out the location, nature and geographical extent of proposed environmental mitigation proposals, outlining the Environmental Function and Landscape Elements, as described in LA117 – Landscape Design, Section 4 Masterplans, Table 4.2a and 4.2b respectively. The detailed landscape design will be based on this masterplan and will provide the information set out in Requirement 5(3) of the dDCO [APP-013].
Q1.2.3	Applicant	Design, mitigation and enhancement measures along with monitoring measures are set out in sections 8.9 and 8.11 of the ES [APP-029]. So, the ExA can be satisfied that all such measures can be properly implemented, please clearly set out how each measure would be secured through the dDCO with cross references to the outline CEMP [APP-174] as appropriate.	These measures would be secured through Requirement 4 of the dDCO [APP-013] relating to the CEMP which must be "substantially in accordance with the Outline CEMP" [APP-174] and "must – reflect the mitigation measures set out in the REAC". The table in Appendix 1.2 A details the mitigation that has been included in sections 8.9 and 8.11 of the ES [APP-029] and cross references to where these are included within the Outline CEMP.
Q1.2.6	Applicant	Paragraph 8.10.2 of the ES [APP-029] identifies temporary significant adverse effects upon Longacre Wood Local Wildlife Site. a) Please explain why removal of existing woodland as proposed within Longacre Wood is necessary and what alternatives have been considered. b) For what length of time (expressed in number of years) would the assessed temporary adverse effects continue for?	 a) Removal of woodland that forms the edge of Longacre Wood LWS is required in order to construct the Scheme and tie the earthworks into the existing landform. Two alternatives were considered for the replacement of the existing Allerdene Bridge, which is necessary regardless of any other design element comprised in the Scheme. The two options were considered prior to announcement of the preferred route and are described in paragraph 3.3.3 onwards in the ES [APP-024]. These were: An on-line option, which would replace the Allerdene Bridge in its existing location, would have slightly reduced impact on Longacre Wood. However, this option would require significant temporary bridge works to maintain the traffic flows during construction over the ECML and would have a longer construction period,



Ref No: 1.2	Question to:	Question: Biodiversity, Ecology and Natural Environment	Response:
		c) Provide details and evidence of the growth and establishment rates of the proposed replacement woodland planting for Longacre Wood.	 potentially leading to greater disruption. The on-line option on Longacre Wood would result in less than 5m² reduction of impact on Longacre Wood, with other disbenefits – as such it is not to be preferred for ecological reasons The offline option, which ispart of the Scheme, which proposes to realign the A1 to the south of the existing mainline and has a number of constraints that impact Longacre Wood. This includes that the horizontal separation between the proposed A1 offline section and the existing carriageway needs to be sufficient for constructability, horizontal alignment is required to be to standard, and to avoid any impact to the existing Smithy Lane bridge which is retained as existing with this option.
			As a result of the selection of the offline route it is necessary for an area of the Longacre Wood LWS to be removed. Because an area of woodland will inevitably be lost, there are no methodological alternatives that can be explored for the effect upon the wood. Nevertheless, certain measures will be taken as follows: linear belts of shrubs and trees (LE 2.4) and Woodland Edge (LE 2.2) planting would be planted in order to reform the woodland edge. These obligations are contained under references L7 and B2 in the Outline CEMP [APP-174]. • Woodland loss at Longacre Wood LWS would be reduced to avoid unnecessary removal through the design of earthworks. This would be achieved through the steepening of the earthworks adjacent to the carriageway from 1:3 to 1:2 to reduce the footprint and with it the number of trees to be removed within Longacre Wood. This is secured by B21 in the Outline CEMP [APP-174].
			b) At the anticipated growth rates identified below, the impact on Longacre Wood comprising the loss of 57m² of woodland would be replaced with an equal area of woodland planting within a 15 year timeframe, newly planted trees expected to have established to a height not less than 4.5m
			c) Proposals to replace woodland at Longacre Wood LWS, are contained within Figure 7.6: Landscape Mitigation Design [APP-061]. These comprise an area of woodland of not less than 57m² in area, between chainage 1740 and 1770, and in addition a belt of shrub and tree planting extending between chainage 1770 and 1880. Although detailed design has not yet been undertaken the woodland would comprise a mixture of native species as required within Table 3-1, REAC, Ref B2 of the CEMP [APP-174].
			Planting is secured through the measures set out in L7, L15 and B2 of Table 3-1 REAC described within the CEMP [APP-174]. Reference L15 requires planting to take place in accordance with the Manual Contract for Highway Works (MCHW) Series 3006, which sets out in detail how the planting is to be supplied and planted.
			Using these standards, for the purpose of this assessment it is assumed that within normally accepted rates of growth and by the design year,



Ref No: 1.2	Question to:	Question: Biodiversity, Ecology and Natural Environment	Response:
			 all hedgerows would have reached a height of 2 m and be subject to ongoing management, during the establishment period, as referenced in L15 of the Outline CEMP [APP-174] to maintain this height,
			 with woodland blocks, including replacement planting at Longacre Wood, reaching a minimum height of 4.5 m in height, based on woodland, planted as transplants and achieving an annual growth rate of 0.25m in height.
			The proposed woodland edge planting to the fringes of Longacre Wood would comprise both native shrub and tree species and would be designed to include species such as silver birch and hazel, both of which are species that are adaptable to a variety of conditions and should in reasonable growing conditions achieve the rates identified above. How a tree is specified, handled, planted and subsequently protected from damage and pests will influence how well the tree initially establishes and grows. Growth rates will vary significantly between species and over time will vary and may slow down as the trees and shrubs mature. They will also be influenced by the underlying growing
			conditions such as availability to light, water and nutrients. Clauses 3006.1 within the MCHW Series 3000 (secured through reference L15 of the Outline CEMP) requires contractors to undertake the above operations to defined British Standards (as amended). For the establishment of new planting the current British Standard is BS 8545:2014 Trees: from nursery to independence in the landscape would be applicable. Recommendations, and reference to this would be included within the relevant MCHW specification clauses.
			Within this timeframe a small percentage (normally expected up to 10%) would fail to establish and this is within a normally accepted rate of failure in planting schemes, which is taken account of in the design with a provision for this in the planting centres. There is further provision for failed or missing plants to be replaced within Clauses 3006.87 to 3006.91 within the MCHW Series 3000 to be secured through reference L15 of the Outline CEMP [APP-174]. Within which there is a requirement for the replacement of "all plants which are missing, have died, or which in the opinion of Highways England are failing to make satisfactory extension growth". This would be undertaken during the next available planting season and would "be the same as the original stock at the time of planting, except that it shall be an additional year older for each year that has elapsed since the original stock was first planted, unless otherwise stated in Appendix 30/6".
			As a result, there is a high degree of confidence that the mitigation would be secured by year 15 and the impacts would be in line with those predicted within Chapter 7 Landscape and Visual of the ES [APP-028].
Q1.2.7	Applicant	Measure Ref B21 of the Register of environmental actions and commitments within the outline CEMP (Table 3-1 of APP-174] states that replacement planting will be undertaken in Longacre Wood to replace any trees that	The original definition of "commence" in the dDCO [APP-013] means that prior to the authorised development commencing, a landscaping scheme would need to be submitted under Requirement 5. Furthermore, the final CEMP would need to be approved, including proposals for the replacement and retention of trees in Longacre



Ref No: 1.2	Question to:	Question: Biodiversity, Ecology and Natural Environment	Response:
		were intended to be retained. Requirement 5(6) of the draft DCO makes provision for this.	Wood. The definition of "commence" has been amended to provide that the removal of trees under "site clearance" does not occur prior to identifying those to be retained.
		How will this provision work in practice as the landscaping scheme sought by Requirement 5 would need to be approved prior to the commencement of construction works?	In terms of physical measures, by adopting the specific environmental measures outlined within the Outline CEMP [APP-174], safeguard existing vegetation, including within Longacre Wood, and the replacement of planting where appropriate. As detailed in para 1.1.4 of the Outline CEMP, the CEMP and requirements provide for a Landscape Management Plan., Table 2-1 of the Outline CEMP sets out the responsibilities of the Landscape Specialist who oversee and monitor the implementation of Figure 7-6: Landscape Mitigation Design – [APP-061], including the maintenance and establishment of the landscape works.
			 The following provisions within Table 3-1 of the Outline CEMP [APP-174] are specifically relevant to safeguarding the woodland at Longacre Wood: L3 – that limits the clearance of vegetation and how they would be protected with reference to BS5837. L7 – Requires the planting of a woodland edge mix between chainages 1700 – 2320, which includes the relevant section of the Longacre Wood.
			The detailed design would make provision for the planting of woodland to replace that removed in Longacre Wood should additional trees require removal for the purpose of construction and cannot be protected by tree protection measures as outlined in B21 of Table 3-1 REAC described within the CEMP [APP-174]. This measure requires the replacement of any trees that were intended to be retained which are felled or die as a result of construction works.
			In practice, provision L15 of Table 3-1 REAC described within the CEMP [APP-174] requires that planting, would be delivered as set out in the Manual Contract for Highways Works, Series 3006 – Planting. Clauses 3006.87 to 2006.91 states that should areas of planting be "missing, have died, or which in the opinion of Highways England are failing to make satisfactory extension growth" (MCHW Series 3006/89) then replanting would be undertaken during the next available planting season and would "be the same as the original stock at the time of planting, except that it shall be an additional year older for each year that has elapsed since the original stock was first planted, unless otherwise stated in Appendix 30/6". This would ensure that at the end of the 5 year planting establishment period that planting will have been planted and in situ and that in the opinion of the Applicant it is in a suitable condition, such that subject to ongoing management it will continue to grow and provide the required levels of screening. Beyond the 5 year establishment period, a Handover Environmental Management Plan (HEMP) would be prepared which will set out the programme of activities required to ensure the successful establishment of the planting to Year 15.
			This will provide a high level of confidence that the mitigation would achieve its environmental function.



Ref No: 1.2	Question to:	Question: Biodiversity, Ecology and Natural Environment	Response:
Q1.2.8	Applicant	Paragraph 8.10.7 of the ES [APP-029] explains that the creation of new woodland would be of a smaller overall area than that lost but would be of a higher quality including a management regime that creates gaps allowing light to reach the understory layer in patches. provide further explanation of a) why it is not possible to provide the same area of woodland than that lost, b) how the higher quality would be practicably achieved and c) set out how the management regime would be secured and implemented in the long term through the dDCO?	a) It is not correct that the creation of new woodland would be of a smaller overall area than that lost. The woodland area lost and created for each of the Scheme options (embankment and viaduct) is detailed below. A great area of woodland will be created than lost: • Embankment: Area Lost – 14.13Ha; Area Created: 14.88Ha; and • Viaduct: Area lost – 13.83Ha; Area Created: 14.33Ha. Woodland loss has been avoided where feasible during the design process. However, there are areas of woodland which fall within the permanent land take of the Scheme. There is a limited area of available land for habitat creation and a balance is required within the design to ensure habitat loss is minimised for each of the habitats of principal importance that are impacted by the Scheme. This is further bolstered by improvements in habitat quality and providing additional connectivity by improving of woodland. This includes woodland and woodland corridor creation, including linking existing woodland at Robin's Wood to the River Team and enhancing the wildlife corridors between Longacre Wood LWS and the existing wildlife corridor to the west. It is considered that improving quality by strengthening connective corridors and improving retained woodland habitats aids the effectiveness of the mitigation design. However, the Biodiversity Net Gain (BNG) calculates the area value of the habitat retained, reinstated, lost and compensated associated with the Scheme. BNG assessments are not required to inform nationally significant infrastructure projects (NSIPs). However, the Applicant has an internal policy to adhere to a no net loss in Habitats of Principal Importance policy, where possible, across all schemes as a whole. As detailed within the BNG assessment, the woodland habitats within the Scheme Footprint, the condition scores range between Poor and Good. Woodland with Poor or Moderate condition scores range between Poor and Good. Woodland with Poor or Moderate condition scores range between Poor and Good. Woodland with Poor or Mode



Ref No: 1.2	Question to:	Question: Biodiversity, Ecology and Natural Environment	Response:
			Works, Series 3006 – Planting. This states that should areas of planting be "missing, have died, or which in the opinion of Highways England are failing to make satisfactory extension growth" (MCHW Series 3006/89) then replanting would be undertaken during the next available planting season and would "be the same as the original stock at the time of planting, except that it shall be an additional year older for each year that has elapsed since the original stock was first planted, unless otherwise stated in Appendix 30/6". This would be secured through L15 in Table 3-1 of the Outline CEMP [APP-174]. This would ensure that at the end of the 5 year planting establishment period that planting will have been planted and in situ and that in the opinion of the Applicant it is in a suitable condition, such that subject to ongoing management it will continue to grown and provide the required levels of screening. Beyond the 5 year establishment period, a Handover Environmental Management Plan (HEMP) would be prepared which will set out a programme of activities required to ensure the successful establishment of the planting to Year 15, including the management of existing woodland. This will provide a high level of confidence that the mitigation would achieve its environmental function. The requirement for the reparation of a HEMP is outlined in Section 6.2 Maintenance in the Outline CEMP [APP-174]. a. The identification of a Landscape Specialist in the Outline Construction Environmental Management Plan [APP-174]) in Table 2-1 Responsibility Matrix, whose role would be: i. Oversee and monitor the implementation of the landscape mitigation strategy Figure 7-6 Landscape Mitigation Design [APP-061]on site. ii. Oversee and monitor the establishment/maintenance of the landscape works throughout the period from completion to the issue of the Defects Certificate relating to planting. iii. Verifies the sue of Design Certificates related to landscape works. iv. Monitors and assesses the development of the Scheme in its lands



Ref No: 1.2	Question to:	Question: Biodiversity, Ecology and Natural Environment	Response:
Q1.2.9	Gateshead Council and Natural England	The Applicant has submitted an Environmental Statement Addendum [AS-016] concerning the identification of two additional LWSs and the amendment of the boundaries of two Local Wildlife Site's within the scheme footprint and 2km buffer. Gateshead Council and Natural England should ensure that their Written Representation and/or Local Impact Report takes into account this additional information provided by the Applicant.	



Table 1.4 – Applicant's Responses to the ExA's First Written Questions - Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations

Ref No: 1.3	Question to:	Question: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	Response:
Q1.3.1	Applicant	The Applicant is requested to complete the annexed Compulsory Acquisitions Objections Schedule (Annex A) and to make any entries it believes would be appropriate, taking account of the positions expressed in Relevant Representations, and giving reasons for any additions. As the Examination progresses and at each successive deadline update the Schedule as necessary.	The Compulsory Acquisitions Objections Schedule is an evolving document that has been and will continue to be reviewed throughout the project. The latest version of the document has been submitted at Deadline 2 (see Appendix 1.3.A) and will be updated again during the Examination process in order to take into account of further representations. Offer letters were issued on 21 February 2020. Appendix B of the Statement of Reasons [APP-016] has been updated and submitted to the Planning Inspectorate for Deadline 2 on 25 February 2020.
Q1.3.2	Applicant	The Book of Reference (BoR) [AS-004] includes several Statutory Undertakers with interests in land. a) Please 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. c) State whether any additional Statutory Undertakers have been identified since the submission of the BoR with the application.	For responses to a) and b), please see the table in Appendix 1.3.B. c) No additional Statutory Undertakers have been identified since the submission of the BoR with the Application.
Q1.3.3	Applicant	The former Department for Communities and Local Government published Guidance related to procedures for Compulsory Acquisition (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-017] 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 2.1.2 of the Funding Statement (Application Document Reference: TR010031/APP/4.2) states that the most likely estimate of the Scheme is £289 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 in the Scheme estimate and met through the sources of funding detailed with Section 3 of the Funding Statement. 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. 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



Ref No: 1.3	Question to:	Question: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	Response:
			Compensation Code and the Department for Communities and Local Government published Guidance related to produces for Compulsory Acquisition.
Q1.3.4	Applicant	The Applicant is requested to review the Relevant Representations 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: a) the name of the Statutory Undertaker; b) the nature of their undertaking; c) the land and/or rights affected (identified with reference to the most recent versions of the BoR and Land plans available at that 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 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 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. The table should be titled ExQ1.3.4: 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.	



Ref No: 1.3	Question to:	Question: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	Response:
Q1.3.5	Applicant	The Applicant is requested to review its proposals relating to CA or temporary possession (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: a) the name of the Statutory Undertaker; b) the nature of their undertaking; c) the relevant rights to be extinguished; and/or d) the relevant apparatus to be removed; e) how the test is s138(4) can be met; and 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 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. The table should be titled ExQ1.3.5: PA2008 s138 Statutory	Please refer to table in Appendix 1.3 D.
		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.	
Q1.3.6	Applicant	Paragraph 3.5 of the Explanatory Memorandum [APP-014] states that the Applicant has chosen not to differentiate between the NSIP and associated development works in Schedule 1 of the draft DCO. a) How does this approach reflect the Guidance on associated development 'Planning Act 2008: associated development applications for major infrastructure projects' (former Department for Communities and Local Government, April 2013)? b) Paragraph 2.3.1 of the SoR [AS-014] sets out the works	(a) There is no requirement in the 2008 Act or in the "Planning Act 2008: Guidance on associated development applications for major infrastructure projects" for a DCO to differentiate between NSIP and associated development. The Examining Authority requires to be satisfied that the development which would be authorised by the draft DCO is either development for which development consent is required or is associated development in terms of section 115 for which consent may also be granted. However, that does not mean that associated development needs to be described separately within the draft DCO. The consistent approach which has been taken with highways DCOs is to identify all



Ref No: 1.3	Question to:	Question: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	Response:
		necessary to deliver the scheme. Which, if any, of these works, can be identified as associated development?	the works which are authorised by the DCO without distinguishing between NSIP and associated development. This approach has been approved in various highways orders including the A19/A184 Testo's Junction Alteration Order 2018; A14 Cambridge to Huntingdon Improvement Order 2016; the M4 Motorway (Junctions 3 to 12) (Smart Motorway) Order 2016; and the Silvertown Tunnel Order 2018. The current draft order follows this broad precedent and the applicant does not consider that there is any good reason to depart from it.
			(b) Ultimately, all elements of the proposed development either constitute part of the NSIP or are associated development within the meaning of section 115(2) of the Act. They can therefore properly be authorised by the Order. However, should it assist examination of the application, the following numbered works in Schedule 1 to the Order are considered to comprise, or include, associated development when applying Annex B of the above-mentioned guidance: Work Nos. 9 to 16, 18, 20, 22 and 23. Elements of works 19 and 20 might also be considered to comprise associated development but the extension of the Longbank Bridleway Underpass and culverted watercourse under the A1 are required in order to construct the NSIP highway works over them.
Q1.3.7	Applicant	Paragraph 3.4.1 of the SoR [AS-014] refers to temporary possession powers sought under Articles 32 and 33 of the dDCO [AS-012]. 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 development, please provide further details to justify the extent of the land sought to be used temporarily. For each area explain why such a size is required and the justification for the extent of each plot.	The justification for the temporary land required for the construction of the Scheme is included in the Statement of Reasons [APP-016], Annex A, Table 2. The area of each plot of temporary land required is indicated in Book of Reference [APP-018], Part 1. See Appendix 1.3 E.
Q1.3.8	Applicant	Plot Refs 3/4p, 3/4q and 3/4r [AS-002] comprise land within Longacre Wood. a) Notwithstanding the details provided in the Tables 1, 2 and 6 of the SoR [AS-014], please provide more detailed justification of the need for the acquisition/possession of this land, including the extent of land within each plot. b) What implications would arise from any works proposed upon these plots on public access to and enjoyment of Longacre Wood?	 a) See Appendix 1.3 F for the more detailed justification of the acquisition/possession of plots refs 3/4p, 3/4q and 3/4r [AS-002] in Longacre Wood. b) Whilst there is a 57m² (<0.1%) reduction in the size of Longacre Wood the remaining woods would remain accessible and suitable for public enjoyment as it is now on completion of the works. During construction, there will be a temporary reduction in enjoyment due to community land being next to construction activity this impact has been assessed as "temporary slight adverse" in Chapter 12 of the Environmental Statement [APP-033]. Further details of the impact during construction is in the response to ExAQ 1.8.9.
Q1.3.9	Applicant	The SoR [AS-014] at section 5.4 states that there is a compelling case in the public interest for the Compulsory Acquisition.	a) Detailed land referencing and consultation has been carried out with all affected land owners, as summarised in Annex B of the Statement of Reasons (Application Document Reference: TRO10031/APP/4.1). This exercise has



Ref No: 1.3	Question to:	Question: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	Response:
		 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 Compulsory Acquisition powers in each case? 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? c) Demonstrate how such a conclusion has been reached and how the balancing exercise between public benefit and private loss has been carried out? 	assessed the effect on all individual affected persons' private loss resulting from the exercise of Compulsory Acquisition powers. b) See table at Appendix 1.3G. In balancing the interests of public benefit and private loss, the Applicant has taken a consistent approach in identifying the type and nature of land being acquired, the extent of powers sought and the alternatives which are available which would deliver the same or similar result for the scheme. In a scheme of this nature, it is not possible to deliver strategic infrastructure improvements without an element of private loss and the Applicant has gone to great lengths in the land referencing process and consultation process to minimise land-take and the extent of permanent acquisition. See table at Appendix 1.3E which identifies how public benefits outweigh private loss for each plot.
Q1.3.10	Applicant	Section 6 of the SoR [AS-014] addresses human rights. a) Please provide a more detailed demonstration that interference with human rights in this case would be proportionate and justified? b) How has the proportionality test been undertaken and explain how this approach has been undertaken in relation to individual plots?	(a) The exercise carried out by the Applicant to ensure that the interference with human rights as a result of the powers of compulsory acquisition and temporary possession sought in the DCO would be proportionate and justified involved the following assessments, based on the guidance set out in 'Planning Act 2008: Guidance related to procedures for the compulsory acquisition of land' (DCLG, September 2013). Further detail as to each of these assessments is provided below. i. the need for and public benefits of the Scheme; ii. the need for the land; iii. the extent of the private loss of the affected individuals; iv. the consideration of reasonable alternatives; and v. the assessment of the private loss of individuals impacted by compulsory acquisition or temporary possession against the public benefits of the Scheme. The need for and public benefits of the Scheme are set out in detail in section 2.2 of the Statement of Reasons [AS-014], chapter 4 of the Transport Assessment Report [APP-173] and Chapters 2 and 4 of the Planning Statement [APP-171]. These documents demonstrate that there is a compelling case in the public interest for the Scheme to be delivered. Of particular relevance is the alignment of the Scheme with the objectives of the National Networks National Policy Statement and the Government's Road Investment Strategy, which demonstrates the substantial public benefits which would arise from the delivery of the Scheme. Having established the need for and public benefits of the Scheme, it is necessary to assess the private loss of individuals impacted by compulsory acquisition or temporary possession against those public benefits. In order to do so, the need for the land and the extent of the private loss of the affected individuals must be ascertained. In respect of the need for the land, paragraph 6.3.2 of the Statement of Reasons confirms that the land proposed to be acquired is the minimum land-take necessary to deliver the Scheme and is required to realise the public benefits of the



Ref No: 1.3	Question to:	Question: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	Response:
			Scheme. The Applicant has sought to achieve a balance between minimising land take and securing sufficient land to ensure delivery of the Scheme, noting that the detailed design of the Scheme is yet to be developed. In that context, the limits of the land to be acquired or used have been drawn as tightly as possible so as to avoid unnecessary land take.
			This process of identifying land requirements took place as the Application was being prepared, where the proposed Order limits and extent of permanent land acquisition were debated, including with the Applicant's legal team and land referencing team. This process included: identifying whether land was actually required in discussion with engineers; identifying if small areas of acquisition/possession could be avoided; and, conversely, extending the Order limits in circumstances where an owner might be left with an unviable rump which would be expected to be an impediment as opposed to an asset.
			As summarised in Annex B of the Statement of Reasons, detailed land referencing and consultation was carried out with all affected land owners, thereby identifying the extent of land to be taken, which allows an appreciation of all individual affected persons' private loss based upon land valuation. It should also be noted that it will be open to affected persons to make a claim for compensation in each case of compulsory acquisition or temporary occupation. The need for the land and the extent of the private loss of the affected individuals is set out for each individual plot in table 1.3.9. In addition, as part of the assessment of the need for the land, reasonable alternatives were considered. The process by which the Applicant considered reasonable alternatives is described at section 5.5 of the Statement of Reasons and in Chapter 2 of the Consultation Report [APP-019]. Meanwhile, an assessment of reasonable alternatives for each individual plot is set out in Appendix 1.3 G.
			The private loss of individuals impacted by compulsory acquisition or temporary possession must then be assessed against the public benefits of the Scheme. As confirmed in paragraph 6.3.1 of the Statement of Reasons, the Scheme will have an impact on individuals but the public benefits that will arise from the Scheme will outweigh the harm to those individuals. A plot-by-plot assessment of the private loss of individuals impacted by compulsory acquisition or temporary possession for the Scheme against the public benefits of the Scheme is set out in Appendix 1.3 F.
			As a result of the above assessment, balancing the requirement for each individual plot against its anticipated impacts on the existing landowners and occupiers, the Applicant is satisfied that the powers of compulsory acquisition and temporary possession sought in the DCO, and the resulting interference with human rights, is necessary, proportionate and justified.



Ref No: 1.3	Question to:	Question: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	Response:
			 (b) The approach taken to the proportionality test is set out on a Scheme-wide basis in the Applicant's above response to ExA Written Question 1.3.10(a). The application of the test to individual plots is relevant in respect of the need for the land, the extent of private loss, the assessment of private loss against public benefit and the assessment of reasonable alternatives. The remaining aspect of the proportionality test (the need for and public benefits of the Scheme) is described on a Scheme-wide basis in the Applicant's above response to ExA Written Question 1.3.10(a). The application of the proportionality test to individual plots is set out in the following locations: Appendix 1.3 F, produced in response to ExA Written Question 1.3.9, details the need for the land, the extent of private loss and an assessment of private loss against public benefit in respect of each person affected by compulsory acquisition or temporary possession for the Scheme. Appendix 1.3 G, produced in response to ExA Written Question 1.3.14, details the assessment of the reasonable alternatives for each plot and demonstrates that there were no reasonable alternatives on a plot-by-plot basis.
Q1.3.11	Applicant	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 Compulsory Acquisition and Temporary Possession powers sought and where, giving specific paragraph references, are these set out in the submitted documentation?	Chapter 5 of the Statement of Reasons [APP-016] already sets out the compelling case in the public interest for the compulsory acquisition and temporary possession powers sought. The conclusion of this Statement is that the grant of the compulsory powers requested would be lawful under all applicable legal regimes. Chapter 5 of the Statement of Reasons [APP-016] cross refers to Chapter 5 and specifically paragraph 2.2 of the Planning Statement [APP-171] on planning policy which describes the relevant parts of the National Networks National Policy Statement (NNNPS). This section has also be updated to refer to Green Belt case law and the need to consider "other harm". As set out above, the Planning Statement has been updated to show that no significant other harm will be created by the development during construction or operation. Paragraphs 5.4.3 specifically lists factors be considered in the compelling case in the public interest, in particular as set out in paragraph 2.2 of the NNNPS identifies a "critical need" to improve the national networks to address road congestion and crowding on the railways to provide safe, expeditious and resilient networks that better support social and economic activity; and to provide a transport network that is capable of stimulating and supporting economic growth. It goes on to state that improvements may also be required to address the impact of the national networks on quality of life and environmental factors. The NNNPS Paragraph 4.2 states that there should be a "presumption in favour of



Ref No: 1.3	Question to:	Question: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	Response:
			granting development consent for national networks NSIPs that fall within the need for infrastructure established in the NPS".
			The Government identified the need for the Scheme in the Road Investment Strategy. The A1 between Birtley and Coal House is an important stretch of the Strategic Road Network (SRN) serving both the local and wider economy. In the morning peak period (without the Scheme), the two-way total traffic between junction 65 (Birtley) and junction 66 (Eighton Lodge) is forecast to grow by 16% and 3% between junction 66 (Eighton Lodge) and junction 67 (Coal House) by 2038. This is largely due to the planned growth in the Newcastle, Gateshead and wider region. This additional traffic demand will further exacerbate the congestion and capacity issues experienced on the A1 NGWB, particularly between junction 65 (Birtley) and junction 67 (Coal House). Further details can be found in the Transport Assessment Report [APP-173]. These issues are a constraint to future investment and economic growth in the area without the Scheme in place. Paragraph 2.22 of the NNNPS states that: "Without improving the road network, including its performance, it will be difficult to support further economic development, employment and housing and this will impede economic growth and reduce people's quality of life. The Government has therefore concluded that at a strategic level there is a compelling need for development of the national road network"
			The Scheme is designed to improve traffic flows and reduce driver delays currently experienced on this section of the A1 NGWB, which is a strategically important part of the road network for the regional and national economy. The Scheme would reduce delays in the vicinity of the Team Valley Trading Estate which is a strategic employment area and plays a key role in the government's investment strategy for creating jobs in the North East. The Scheme would provide additional capacity to support future development of the Team Valley Trading Estate.
			The addition of new lanes will contribute to the free-flow of traffic on the A1 reducing driver delays and time lost for business users and reducing stress for all users.
			The Scheme will improve safety on local roads by reducing accidents, as well as on the SRN.
			The replacement of the Allerdene Bridge would improve the reliability of this section by avoiding the likely need for both routine and emergency maintenance and repair of the aging structure, and subsequent disruption to highways users. Safety would be improved through better signage and traffic information, and stress reduction.
			The Scheme is designed to provide an overall environmental enhancement, in particular through improved landscaping, water management (through SuDS and other measures), and noise reduction (through improved carriageway surfacing and additional noise barriers). There would also be some small initial improvements in air quality and carbon emissions through reduced congestion, although increased capacity



Ref No: 1.3	Question to:	Question: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	Response:
Q1.3.12	Applicant and Northern	NGN has made a representation [RR-004] regarding the	may mean that benefits are offset as traffic levels increase. The Scheme would relieve congestion on the SRN and therefore help to join up communities by reducing delays that currently make travel difficult on this section of the A1. The Scheme would retain existing connectivity between communities on either side of the A1.
Q1.3.12	Gas Networks Limited	temporary acquisition of its land. At present it does not fully support the application. NGN states that further details of its concerns will be set out in its Written Representation including proposed protective provisions. a) The Applicant is asked to explain why CA and/or TP is required and whether or not its needs could be met by any alternative provisions, a lease or other legal agreement relating to NGN land? b) NGN is requested to provide further details of its proposed Compressed Natural Gas refuelling station including details of the stage it is currently at in the design, planning and consenting process and a timetable for its implementation? c) Further details from both parties are also requested providing up to date details of discussions d) that have taken place regarding the provision for retaining scope for the development of the proposed Compressed Natural Gas refuelling station.	This is addressed in table in Appendix 1.3E. However, Highways England would summarise: a) It is necessary to seek powers of compulsion since NGN has not concluded an agreement in relation to the powers and interests sought. It is provided at paragraph 25 of the MHCLG Document <i>Planning Act 2008: guidance related to procedures for the compulsory acquisition of land</i> (2 September 2013) that "Where proposals would entail the compulsory acquisition of many separate plots of land (such as for long, linear schemes) it may not always be practicable to acquire by agreement each plot of land. Where this is the case it is reasonable to include provision authorising compulsory acquisition covering all the land required at the outset." This is such a case, where on a linear project it has not been possible to reach agreement with NGN it is appropriate to seek powers of compulsion. Whilst Highways England is very encouraged by the highly practical approach now being adopted by NGN, it must be confident that it can deliver the Scheme. Hence, it is very important in order to reach agreement that the shadow of compulsion remains. Even after the conclusion of an agreement it will remain important for such powers to remain, because they may be required under the agreement in certain circumstances (such as to resolve matters not covered under its terms or to deal with any third party interests over the land). Highways England remains committed to seeking a solution by agreement. b) This question does not require a response from Highways England. The details of discussions underway are contained in the response to NGN's Written Representation.
Q1.3.13	Applicant and Network Rail Infrastructure Limited	Network Rail Infrastructure Limited (NR) has made a representation [RR-003] objecting to the proposed CA and/or TP. a) NR is requested to explain why CA and/or TP is inappropriate, with reference to the effect that it would have on its undertaking and the operation of the railway? b) The Applicant is asked to explain why CA and/or TP is required and whether or not its need could be met by	 a) This question does not require a response from Highways England. b) It is necessary to seek powers of compulsion since Network Rail has not concluded an agreement in relation to the powers and interests sought. It is provided at paragraph 25 of the MHCLG Document <i>Planning Act 2008:</i> guidance related to procedures for the compulsory acquisition of land (2 September 2013) that "Where proposals would entail the compulsory acquisition of many separate plots of land (such as for long, linear schemes) it may not always be practicable to acquire by agreement each plot of land. Where this is



Ref No: 1.3	Question to:	Question: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	Response:
		any alternative provisions, a lease or other legal agreement relating to NR operational and nonoperational land? c) NR is requested to identify whether any alternative provisions, a lease or a legal agreement could address its concerns. d) The Application is asked to respond to each of the particular points (a) to (f) set out in NR's e) Relevant Representation [RR-003].	the case it is reasonable to include provision authorising compulsory acquisition covering all the land required at the outset." This is such a case, where on a linear project it has not been possible to reach agreement with Network Rail it is appropriate to seek powers of compulsion. Whilst Highways England is very encouraged by the practical approach now being adopted by Network Rail, it must be confident that it can deliver the Scheme. Hence, it is very important in order to reach agreement that the shadow of compulsion remains. Even after the conclusion of an agreement it will remain important for such powers to remain, because they may be required under the agreement in certain circumstances (such as to resolve matters not covered under its terms or to deal with any third party interests over the land). The Examining authority will note that Network Rail has been offered protective provisions that have been found acceptable by the Secretary of State on numerous previous occasions, even if the powers of compulsion are deployed. Highways England remains committed to seeking a solution by agreement. c) This question does not require a response from Highways England. d) The various points to which reference is made were addressed in Highways England's submission in relation to Network Rail's Relevant Representation submitted at Deadline 1.
Q1.3.14	Applicant	In the light of the relevant DCLG Guidance related to compulsory acquisition, "Planning Act 2008: procedures for the compulsory acquisition of land" and in particular paragraph 8: a) How can the ExA be assured that all reasonable alternatives to CA (including modifications to the scheme) have been explored? b) Please 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.	There are two main areas of compulsory acquisition – this includes area (1) south of the existing Allerdene Bridge and area (2) adjacent to the southbound carriageway between Junction 66 (Eighton Lodge) and Junction 65 (Birtley). (1) Three alternatives for the scheme have been assessed. Refer to Application Document Reference: TR010031/APP/6.1 Section 3.3. The preferred option (Option 2) minimised Compulsory Acquisition by constructing Allerdene Bridge immediately to the south of the existing bridge. Option 1 to replace Allerdene Bridge online in its current location was more complex and required the construction of a significant temporary structure during the works to carry the traffic over the East Coast Main Line while the new bridge was being constructed. Option 3 was rejected due to significant Compulsory Acquisition and included the demolition and replacement of Junction 67 (Coal House). (2) The initial proposal for the widening of the A1 between Junction 66 (Eighton Lodge) and Junction 65 (Birtley) was to widen the A1 carriageway on both sides of the road (symmetrical widening maintaining the existing A1 carriageway centreline. The scheme design was amended following non statutory consultation undertaken is Q2/Q3 2016 to



Ref No: 1.3	Question to:	Question: Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	Response:
			include asymmetrical widening so that the widening of the A1 was moved further away from residential properties at Crathie and North Dene to reduce the permanent land take required in this area and to reduce disruption impacts to local resident.
			Consideration was also given to properties on the north side of the A1 as a result of this design change; but engineering and environmental assessments concluded that they would not be significantly impacted by the change. Refer to Application Document Reference: TR010031/APP/5.1 Table 20 (item No. 1) Changes to the Scheme as a Result of Consultation.
			See Appendix 1.3.H.
Q1.3.15	Applicant	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	In preparing the Application, the Applicant has carried out diligent inquiry to identify all persons in one or more of the categories set out in section 44 of the 2008 Act, which has been checked. Where the Applicant is made aware of any updates required, we will incorporate that into an updated BoR and Land Plans if required.
		of further owners/interests or monitoring and update of changes in interests?	Section 4 of the Statement of Reasons [APP-016] sets out the Applicant's approach to the identification of land interests. The methods used to identify these interests included; HM Land Registry records, land interest questionnaires, site visits where applicable, and publicly available sources of information e.g. Companies House records, highway authority boundaries, statutory undertaker records etc.
			Land interests who were identified by the Applicant as being in one or more of the categories set out in section 44 of the 2008 Act are listed in the Book of Reference [APP-018] and have been consulted about the Application in accordance with section 42 of the 2008 Act as described in the Consultation Report [App-019].
			The Applicant appreciates that land interest information is constantly evolving and will undertake further periodic searches of HM Land Registry records over the course of the examination to identify any new land interests which may arise from the sale of a property.
			The first refresh of HM Land Registry records was undertaken prior to the issue of section 56 notices to all land interests listed in the Book of Reference [APP-018]. The updates which were identified from this refresh were included in the updated Book of Reference and Schedule of Changes submitted during pre-examination [AS-004, 005 and 006].
			In addition, the Applicant will monitor the return of any undelivered correspondence to determine whether this has resulted from a change in land interest information.
			The Applicant will undertake further refreshes of HM Land Registry records over the course of the examination and each time will provide an updated Book of Reference and Schedule of Changes to capture any changes in land interest information.



Table 1.5 – Applicant's Responses to the ExA's First Written Questions - Draft Development Consent Order (DCO)

Ref No: 1.4	Question to:	Question: Draft Development Consent Order (DCO)	Response:		
		Annex D to the Rule 6 letter dated 10 December 2019 provided notice of an Issue Specific Hearing (ISH) on the dDCO which was held on 21 January 2020 (ISH1). An			
	agenda for ISH1 was published on 15 January 2020. The Examination Timetable provides that post hearing submissions including written submissions of oral cases made at				
			s on any matters set out in those submissions are to be provided by Deadline 2 :		
			lestions. Interested Parties (IPs) who participated in ISH1 and consider that their s in responses to the question below (1.4.1). IPs are requested to review the		
		issions arising from ISH1 before responding to the question below			
	Deadille i writteri subrii	issions ansing from form before responding to the question below	v.		
	Matters set out in Deadline 1 written submissions arising from ISH1 are best responded to in Deadline 2 comments rather than in response to the following question, which aims				
	to capture matters that w	·			
Q1.4.1	IPs other than the	With respect to matters raised in Relevant Representations			
	Applicant	or Written Representations but which were not discussed in			
		ISH1 and in your view require changes to the dDCO please			
		identify any changes that you require, referring to Articles,			
		Requirements and any other provisions as necessary.			
		Provide your preferred drafting where possible and explain			
		why it is proposed and what it aims to achieve. Please			
		cross-reference responses to this question to your Relevant			
		Representation, Written Representation and to other			
		questions in ExQ1 as necessary.			



Table 1.6 – Applicant's Responses to the ExA's First Written Questions - Cultural Heritage

Ref No: 1.5	Question to:	Question: Cultural Heritage	Response:
Q1.5.1	Applicant	Figures 6.1 [APP-051] and 6.2 [APP-052] of the ES show designated and non-designated heritage assets. a) There appear to be some discrepancies between the text in paragraphs 6.6.2 and 6.6.3 of the ES [APP-027] and Figures 6.1 and 6.2. For example, Figure 6.2 (non-designated sites) shows a study area of 1km whereas paragraph 6.6.2 indicates that non-designated assets have been identified within a 500m inner Study Area. Please could these be reviewed and clarified. b) Please update Figure 6.2 to make clear what the different categories of non-designated assets are depicted by green/blue shaded areas, green lines and green dots.	 a) Para 6.6.2 of the ES [APP-027] states that 'An inner Study Area of 500m extending out from the limits of the Scheme Footprint was applied for the identification of all types of heritage assets (designated, non-designated and; potential archaeological remains)' – which is correct. The paragraph goes on to state that these are shown on Figure 6.1 [APP-051]. However, designated assets within the 1km Study Area are also presented on Figure 6.1. Therefore para 6.6.2 should have stated that assets within the 500m study area are presented on both Figure 6.1 designated assets and 6.2 non-designated assets. Para 6.6.3 of the ES states that 'A second, wider Study Area was applied for the assessment of settings of designated heritage assets and Conservation Areas, and this extends up to 1km from the Scheme Footprint' – this is correct. The paragraph goes on to state that these are shown on Figure 6.2 [APP-052]. Para 6.6.3 should also have stated that the designated assets are presented on Figure 6.1 Figure 6.1 shows the designated heritage assets within the 1km Study Area within which they were studied and is correct. Figure 6.2 shows the non-designated heritage assets. The Study Area shown on the figure is 1km but should only extend to 500m as that is the Study Area used for non-designated heritage assets. b) The differences are a consequence of the way the Historic Environment Record (HER) data is provided. There are different shapefiles for polygons, linear features and points. Figure 6.2 [APP-053] will be updated prior to and submitted at Deadline 4 The plan will be updated to show: Non-designated heritage assets – linear features Non-designated heritage assets – polygons Non-designated heritage assets – polygons
Q1.5.2	Applicant	Paragraph 6.6.1 of the ES [APP-027] states that where appropriate, and requested by consultees, assets beyond the 1km study area were also considered. Please identify which, if any, such assets beyond the 1km study area have been considered and the results of any subsequent assessment.	The heritage assets on the periphery of the study area, Cox Close House and House behind Cox Close Cottage were considered initially. An appraisal of the assets and their setting was undertaken. At a distance of over 1km from the Scheme it was judged that there would be no impacts from construction, no discernible increase in noise and no intervisibility with the Scheme (as confirmed by the Zone of Visual Influence). Professional judgement, based on the understanding of the Scheme and the landscape, was then used to scope



Ref No: 1.5	Question to:	Question: Cultural Heritage	Response:
			these out prior to the assessment stage. The assessment did not identify any assets outside of the 1km study area which could potentially be impacted by the Scheme. Additionally, no request was received from consultees to scope in any additional assets.
Q1.5.3	Applicant	Paragraph 6.1.4 of the ES [APP-027] states that there would be no difference between the Allerdene bridge options with regard to the predicted physical impacts on heritage assets. Please explain further how this conclusion has been reached in the context of the Structures Engineering Drawings and Sections [APP-011] which show that the viaduct option would require a greater extent of foundations than the embankment option.	The land to the south of the current A1 is a brownfield site that has been returned to pasture following previous industrial use as a gas storage facility. Any buried archaeology or earthworks would have been removed by prior use of the site and as such neither option would have a physical impact on heritage assets. A review of the available evidence shows ground disturbance due to the presence of storage tanks and associated pipelines and the intrusive works the construction would have required. Records in the HER, pre-dating the construction of the facility, note extant ridge and furrow across the field. This is no longer in existence and therefore it has been assumed that the works that have removed the earthworks will have impacted on any potential underlying archaeology. However, should previously unrecorded remains be noted during construction these will be retained in situ and reported to the relevant planning authority as detailed in Requirement 9 of the draft DCO.
Q1.5.4	Applicant	The Geophysical Survey Report [APP-119] identifies areas which were not surveyed, including Areas 5 – 7 and the south-east of Area 8. a) What assumptions have been made regarding the baseline conditions in these areas and how have these been taken into account in reaching the conclusions of the ES Cultural Heritage assessment? b) Clarify whether surveys of these areas would take place at a later date and if so, how would this be secured through the dDCO?	 Survey Areas 5-7 were not suitable for geophysical survey due to tree and scrub cover. There was no access to the south-east of Area 8 due to the presence of horses. a) The assessment for potential below ground remains in these areas has relied upon the HER data and the evidence obtained from the geophysical surveys completed in close proximity. Results noted agricultural features but no discrete archaeological features. It has been assumed that results would be similar to those noted in the surveyed areas and therefore, impacts have been assessed at the same level as those in the surveyed areas. However, it is anticipated that there will be some level of disturbance of any such agricultural features within Areas 5-7 caused by the disturbance from tree roots b) Due to the presence of trees, geophysical survey could not be completed in Areas 5-7. Where trees are to be removed from the ground, the areas will remain unsurveyable due to damage to the ground. Given the lack of archaeological features noted in the completed survey it is unlikely to be necessary in Area 8. However, completing this survey would be at the discretion of the Archaeological Officer (AO). Further clarification has been sought from the AO, but a response is still pending.
Q1.5.5	Applicant and Historic England	In ES Appendix 4.1 [APP-103], the Applicant states that it: "is in discussions with Historic England in order to obtain a Letter of No Impediment with the aim to include Scheduled Monument Consent within the Development Consent Order".	A separate Scheduled Monument Consent is not required as set out in Section 33(1)(f) of the Planning Act 2008. Authorisation for any works is set out in article 39 and Requirement 10 of the dDCO [APP-013]. Therefore, the Applicant considers that a Letter of No Impediment is not required from Historic England



Ref No:	Question to:	Question: Cultural Heritage	Response:
1.5			Transportion.
		Noting that consent for works to the Bowes Railway Scheduled Monument is sought through the dDCO (Article 39 and Schedule 10), can the Applicant and Historic England provide an update regarding progress towards agreeing any such Letter of No Impediment?	and the matter is proposed to be covered in the SoCG with Historic England.
Q1.5.6	Applicant	To mitigate the loss of part of the retaining wall associated with Bowes Railway Scheduled Monument, ES paragraph 6.9.10 [APP-027] states that Historic England have requested that another section of the surviving wall associated with Bowes Railway Scheduled Monument of equal length to that being demolished is repaired. It is proposed that the section of retaining wall to be repaired and the repointing and conservation methodology, would be agreed with Historic England.	Following consultation with Historic England it has been agreed that the repair of the section of wall to be repaired should take place following the main construction works involved with the widening of the road in this location. The precise timing of the works will be agreed between Historic England and the main contractor prior to construction. An outline method statement would be prepared that details the work required, the exact requirements and the contents of this will be agreed in consultation with Historic England. The works will involve repairing a section of wall using stone salvaged from the dismantled sections, where necessary, and repointed using a lime mortar. A suitably qualified stone mason/stone waller will be appointed to undertake the works. The mitigation works in relation to Bowes railway are set out in CH2, CH3, CH5 and CH6 of the Outline CEMP [APP-174. These works would be secured by the provisions of Requirement 4 of the dDCO [APP-013] which requires that the CEMP is prepared substantially in accordance with the Outline CEMP submitted for the approval of the Secretary of State. Requirement 4(3) requires that the authorised development is carried out in accordance with the approved CEMP. The CEMP has been amended to incorporate changes requested by Historic England.
Q1.5.7	Applicant	Measure Ref N8 of the Register of Environmental Actions and Commitments (REAC) within Table 3- 1 of the outline CEMP [APP-174] states that if any of the retaining wall of the Scheduled Monument is damaged from piling works it will be repaired using the agreed conservation strategy set out in Chapter 6 of the ES [APP-027). However, it is not clear to which part of Chapter 6 this refers. a) Please provide an outline of the content of this conservation strategy along with details of how it would be secured through the dDCO (including timings for delivery)? b) Could the reference to Chapter 6 in Measure Ref N8 be made clearer?	 a) The content of the conservation strategy has not yet been formally agreed however, it will form part of the WSI to be compiled in consultation with Historic England and the Tyne and Wear Archaeological Officer. Repairs to the wall should be carried out immediately following the completion of construction works. The precise timings would be detailed by the main contractor. An outline WSI will be submitted at Deadline 2. b) The cross reference to CH6 in N8 refers to CH6 in the Outline CEMP [APP-174] and not Chapter 6 of the ES [APP-027]. The requirements of CH6 and N8 are part of the Outline CEMP. These works would be secured by the provisions of Requirement 4 of the dDCO [APP-013] which requires that the CEMP is prepared substantially in accordance with the Outline CEMP submitted for the approval of the Secretary of State. Requirement 4(3) requires that the authorised development is carried out in accordance with the approved CEMP. The CEMP has been updated in line with amendments requested by Historic England.



Ref No:	Question to:	Question: Cultural Heritage	
1.5	Question to.	adestion. Cultural Heritage	Response:
			CH6 of the Outline CEMP would require a methodology for the repair of the surviving wall of Bowes Railway to be agreed in consultation with Historic England, N8 of the Outline CEMP requires monitoring of Bowes Railway to identify if piling causes damage, in the event of damage then this would require to be repaired on a like for like basis using the conservation strategy for repair of the surviving wall approved under CH6.
Q1.5.8	Historic England	Article 39 of the dDCO [AS-012] includes authorisation for the works specified in column 2 of Schedule 10 to be carried out.	
		Historic England are requested to comment on whether any further details are required, including with regard to mitigation, in connection with the proposed works to the Bowes Railway Scheduled Monument.	
Q1.5.9	Applicant	Table 3-1 (Ref CH2) of the REAC [APP-174] sets out the measures proposed to be included within the Written Scheme of Investigation (WSI). These would include a mitigation strategy for the impact on the Bowes Railway as well as other potential archaeological remains. The Applicant is requested to submit an outline WSI which has been agreed with Historic England and the LPA setting out the principles to ensure the protection of the archaeological resource and a summary of the necessary archaeological mitigation measures.	Following consultation with Historic England (30/01/2020), an outline WSI will be prepared and agreed in consultation with both Historic England and the LPA. Whilst this will not be the formal WSI for the site work, it will detail all the requirements of that document. The final WSI prepared by the archaeological contractor will be written fully in accordance with the outline WSI. The outline WSI will be submitted at Deadline 2.
Q1.5.10	Applicant and Gateshead Council	Paragraph 6.9.5 of the ES [APP-027] states that the WSI would be submitted in consultation with the Tyne and Wear Archaeology Officer and would be approved by the Secretary of State in consultation with the local authority. There is no similar provision for consultation with the Tyne and Wear Archaeology Officer in either Requirements 4 and 9 of Schedule 2, Part 1 of the dDCO [AS-012] or in the REAC [APP-174]. a) Please clarify the role of the Tyne and Wear Archaeological Officer and how they would be involved in the formulation and/or consenting of the WSI. b) Gateshead Council are also requested to seek and submit the comments of the Tyne and Wear c) Archaeological Officer on the Applicant's Cultural Heritage application submissions.	 a) Requirement 9 of the dDCO [APP-013] states that the 'written scheme for the investigation of areas of archaeological interest [will be] approved in writing by the Secretary of State, following consultation with the relevant planning authority'. The REAC [APP-174] also states that the WSI will be 'agreed with Historic England and the local authority'. In both cases the relevant planning authority would be covered by the Tyne and Wear Archaeological Officer. The Tyne and Wear Archaeological Officer will be consulted during the preparation of any WSI relating to non-designated heritage assets. They will also be required to approve any such document. Additionally, for those works in the location of the Scheduled Monument, the WSI will be written in consultation with, and approved by, both Historic England and the Tyne and Wear Archaeological Officer. b) For Gateshead Council to note.
Q1.5.11	Applicant and Gateshead Council (part d only)	Concerns have been raised [RR-006 and RR-018] regarding the impact of the proposals (including from the road realignment and replacement Allerdene Bridge, gantries, signage and landscaping) on views of the Angel of the North from both the A1 itself and the railway line. Paragraph 6.8.24 of	Refer to separate response on this: a) A technical memo has been prepared and is appended to this response providing a narrative to the views experienced by the users of the A1 itself and the East Coast Main Line (ECML). This describes the



Ref No:	Question to:	Question: Cultural Heritage	Response:
1.5			
		the ES [APP-027] states that views from the road towards the Angel of the North will be slightly more restricted due to the installation of gantries. a) Please can the Applicant provide further detailed assessment of how the proposals would affect views of the Angel of the North, including from the A1 roads itself, the railway line and surrounding landscape. b) Please also provide further detail of how woodland enhancement measures, including thinning operations and pruning would provide greater visibility of the sculpture. c) Supporting visual material is requested in association with the response to parts (a) and (b) of this question. d) Do any further measures need to be secured in the DCO to satisfactorily preserve the views of and setting of the Angel of the North?	anticipated modifications on the views of the Angel of the North as a result of the gantries. An assessment of the effects of the proposed gantries is appended to this response outlining the magnitude of impact and the resulting effect on visual receptors identified within Appendix 7.1: Visual Effects Schedule (APP-121) and Chapter 7: Landscape and Visual of the ES (APP-028). The approach to this assessment has been agreed with Gateshead Council following a meeting on the 19/02/20. b) Existing roadside vegetation, in conjunction with woodland to the west, south and east currently forms a screen to some views of the Angel of the North, and in particular the mound upon which the sculpture stands. As part of the Scheme a substantial block of woodland would be cleared on the southbound verge, to the west of the Angel of the North to facilitate a re-grading of the cutting slope. The result of this would be that views from the A1, and in particular those from the southbound carriageway, would be opened up, making the sculpture more readily visible. The current proposals for the area comprise the replacement of the planting with a woodland edge mix and scattered trees (refer to Figure 7.6 – Landscape Mitigation Design) (APP-061). However following confirmation by Gateshead Council (meeting held on the 19/2/20) of a preferred strategy for the Angel of the North that would seek to reduce the extent of woodland planting associated with the site it has been agreed that a workshop be held to review and where appropriate re-design the site in conjunction with Gateshead Council. A date for this is to be agreed with Gateshead Council. c) The following documents have been revised to include the proposed gantry locations and their impact on views to the Angel of the North. These are appended to this response. Figure 7.7 Viewpoint Photomontages Viewpoint 5 – B (APP-063) Figure 7.7 Viewpoint Photomontages Viewpoint 28 – B (APP-064) Figure 7.7 Viewpoint Photomontages Viewpoint 28 – B (APP-065) Figure 7.7 Viewpoint Photomontage



Ref No: 1.5	Question to:	Question: Cultural Heritage	Response:
			the measures would be secured through reference to L15 of the Outline CEMP (APP-174) and an update to Figure 7.6 Landscape Mitigation Design (APP-061)



Table 1.7 - Applicant's Responses to the ExA's First Written Questions - Landscape and Visual

Ref No: 1.6	Question to:	Question: Landscape and Visual	Response:
Q1.6.1	Applicant	With regard to assessment methodology, paragraph 7.4.3 of the ES [APP-028] refers to two guidance documents. DMRB Volume 11, Section 3 LA107 (Landscape and visual effects) was recently published in September 2019. What implications does this recently published guidance have in terms of the assessment of landscape and visual effects? Are any updates or revisions required?	The assessment contained in Chapter 7: Landscape and Visual of the ES [APP-028] was undertaken in accordance with Interim Advice Note (IAN) 135/10, supported with further guidance in Guidelines for Landscape and Visual Impact Assessment (Third Edition) (GLVIA3). IAN135/10 which replaced DMRB Vol 11, Section 3, Part 5 was a methodology for Highways LVIA written in 2010, in the light of the best practice professional guidance at the time – the Guidelines for Landscape & Visual Impact Assessment Second Edition, 2002 (GLVIA2). LA 107 'Landscape and Visual Effects' is a rewrite to bring DMRB guidance into line with the third edition of the guidance GLVIA3, 2013. It also brings the DMRB guidance into line with the EIA Regulations developed since Directive 2011/92/EU was amended by directive 2014/52/EU. Guidance issued by the Landscape Institute ahead of publication of GLVIA3 2013 advised that, in general terms the approach and methodologies of the two revisions of the document are fundamentally the same, with the main difference being that GLVIA3 places greater emphasis on professional judgement and less on a formulaic approach. GLVIA3 also goes into more detail than GLVIA2 and covers cumulative assessment more thoroughly. This change is generally reflected in LA107 which, with GLVIA3, also aligns with the UK ratification of the European Landscape Convention, the latter recognizing that 'all landscapes are important, irrespective of their location or condition'. An assessment undertaken in accordance with the principles of GLVIA3 and guided by LA107 would not be noticeably different from one undertaken in accordance with the principles of GLVIA3 and guided by IAN 135/10. LA107 was issued in September 2019, following the completion of the LVIA for the Scheme. The assessment has not been updated with the revised guidance (LA107) as in line with General Principles and Scheme Governance, GG101 'Introduction to the Design Manual for Roads and Bridges' Para 1.3, bullet point 2, the assessment would not be materially d



Paragraph 7.4.9 and 7.4.20 of the ES [APP-028] sets out the three scenarios that have been assessed in considering the impacts of the design year. Why this impacts of the design year. Why has summer of the design year. Why has summer of the design year. Why has summer of the design year when trees have lost their leaves? Por the assessment of the design year when trees have lost their leaves? Por the assessment of the design year when trees have lost their leaves? Por the assessment of the design year when trees have lost their leaves? Por the design year when trees have lost the leaves of	Ref No: 1.6	Question to:	Question: Landscape and Visual	Response:
of the baseline in winter and summer, which is currently combined into a sidescription of the landscape character and of the existing baseline visual at However, it is not considered that this would present substantially different those presented within the assessment of Landscape and Visual Effects pr. Chapter 7: Landscape and visual [APP-028] of the ES. In accordance with Written Question 1.6.1, the Applicant is undertaking an of the changes that would occur to the assessments reported in the ES as it this change to DMRB. In accordance with Written Question 1.6.1, the Applicant is undertaking an of the changes that would occur to the assessments reported in the ES as it this change to DMRB. In undertaking the assessment in accordance with Para 3.5 of IAN 135/10, assessed in line with the two specific scenarios for landscape character as the impacts of the scheme upon landscape character (7.4.9) and visual effects (7.4.20). The third of these scenarios is summer of the design year. Why has summer been chosen for the assessments rather than winter when impacts might be different due to the presence of deciduous trees? How would the results of the assessment of visual effects, the following scenarios are required w 135/10: For the assessment of visual effects, the following scenarios are required w 135/10: During the construction period, assuming a maximum visibility or ma perceived change situation (i.e. when construction activity is at its per given view), and noting how long that period would be likely to last; when the presence of the completed Scheme and using it. A winter's day in the year that the Scheme would open to traffic or before any planted mitigation can take effect), taking account of the project and the traffic using it, and; In the summer of the fifteenth year after Scheme opening, (to represent the summer of the fifteenth year after Scheme opening, (to represent the summer of the fifteenth year after Scheme opening, (to represent the summer of the fifteenth year after Scheme opening,				5) the opinions and consensus of the local public and different interest groups, their perception of the landscape, the value they place it and assessment of the change the
Of the changes that would occur to the assessments reported in the ES as a this change to DMRB. Paragraph 7.4.9 and 7.4.20 of the ES [APP-028] sets out the three scenarios that have been assessed in considering the impacts of the scheme upon landscape character (7.4.9) and visual effects (7.4.20). The third of these scenarios is summer of the design year. Why has summer been chosen for the assessments rather than winter when impacts might be different due to the presence of deciduous trees? How would the results of the assessment differ for winter of the design year when trees have lost their leaves? In the winter of the year of opening (to represent a maximum effect so before any planted mitigation can take effect), taking account of the project and the traffic using it, and; In the summer of the fifteenth year after Scheme opening, (to represent a count of the completed Scheme and using it. For the assessment of visual effects, the following scenarios are required with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape tha casessed in line with the two specific scenarios for landscap				With this in mind additional assessments would be required for, a separate description of the baseline in winter and summer, which is currently combined into a single description of the landscape character and of the existing baseline visual amenity. However, it is not considered that this would present substantially different findings to those presented within the assessment of Landscape and Visual Effects provided in Chapter 7: Landscape and visual [APP-028] of the ES.
three scenarios that have been assessed in considering the impacts of the scheme upon landscape character (7.4.9) and visual effects (7.4.20). The third of these scenarios is summer of the design year. Why has summer been chosen for the assessments rather than winter when impacts might be different due to the presence of deciduous trees? How would the results of the assessment differ for winter of the design year when trees have lost their leaves? In the winter of the year of opening (to represent a maximum effect so before any planted mitigation can take effect), taking account of the project and the traffic using it, and; In the summer of the fifteenth year after Scheme opening, (to represent seminary project and the traffic using it, and; In the summer of the fifteenth year after Scheme opening, (to represent a maximum effect so before any planted mitigation can take effect), taking account of the effect scenario, where any planted mitigation measures can be expereasonably effective), taking account of the completed Scheme and using it. For the assessment of visual effects, the following scenarios are required with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific scenarios for landscape character assessed in line with the two specific senarios for landscape in landscape character assessed in line with the two specific senarios for landscape in landscape i				In accordance with Written Question 1.6.1, the Applicant is undertaking an assessment of the changes that would occur to the assessments reported in the ES as a result of this change to DMRB.
planted mitigation has begun to take effect). This is usually a reflective operationally non-fully mitigated/maximum visibility scenario; • A summer's day in the fifteenth year after opening (i.e. when the plan mitigation measures can be assumed to be substantially effective). The usually a reflection of the near fully mitigated scenario under normal (Note however, that planting may be subject to adverse local conditive exposure or high altitude, which may require a longer assessment day determined).	Q1.6.2	Applicant	three scenarios that have been assessed in considering the impacts of the scheme upon landscape character (7.4.9) and visual effects (7.4.20). The third of these scenarios is summer of the design year. Why has summer been chosen for the assessments rather than winter when impacts might be different due to the presence of deciduous trees? How would the results of the assessment differ for winter of the design year when trees	 In the summer of the fifteenth year after Scheme opening, (to represent a least effect scenario, where any planted mitigation measures can be expected to be reasonably effective), taking account of the completed Scheme and the traffic using it. For the assessment of visual effects, the following scenarios are required within IAN 135/10: During the construction period, assuming a maximum visibility or maximum perceived change situation (i.e. when construction activity is at its peak for any given view), and noting how long that period would be likely to last; A winter's day in the year that the Scheme 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; 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. (Note however, that planting may be subject to adverse local conditions such as exposure or high altitude, which may require a longer assessment date to be



Ref No: 1.6	Question to:	Question: Landscape and Visual	Response:
			the design year has been undertaken in the summer of the fifteenth year. The assessment of landscape and visual effects would, in the winter of the design year, and in the absence of foliage be marginally worse. However, due to the depth (width) of the majority of the planting beds, proposed in Figure 7.6: Landscape Mitigation Design of the ES [APP-061], as part of the Scheme and the Application being greater than 5m, the overall effects would not be wholly different, the views still being filtered/screened by the planting. This is secured by the identification of the Landscape Specialist (role description in Table 2-1 – Responsibility Matrix of the Outline CEMP of the ES [APP-174]) whose role is to ensure the implementation of the landscape mitigation strategy (Figure 7.6: Landscape Mitigation Design of the ES [APP-061]) and References L4 – L15 of Table 3-1 REAC in the Outline CEMP of the ES [APP-174].
Q1.6.3	Applicant	One of the assumptions and limitations listed in paragraph 7.5.1 of the ES [APP-028] states that it is assumed that the design of the slopes in cuttings and embankments would, where required, provide suitable growing conditions for native trees and that suitable depths of topsoil can be achieved. What are the factors that would determine the suitability of slopes for planting and how would these be taken account in the scheme design? What measures would be secured by the dDCO to ensure that appropriate growing conditions would be provided?	The primary factor that determines the suitability of a slope for planting is its steepness. Slopes less steep than 1:2.5 can have a suitable depth of top soil overlain to allow conventional planting techniques and provide adequate rooting volume for the establishment of a wide range of locally native trees and shrubs. The factors that would determine the suitability for planting would be: • Slopes have typically been designed at no steeper than 1:3 throughout the scheme, providing a suitable slope for planting, although localized steepening of slopes has been included where it would reduce the footprint of the Scheme and avoid the unnecessary removal of habitats e.g. embankments adjacent to Longacre Wood, where the slope has been locally steepened to 1:2. The slope steepness is described at item I, section 2.7.1 of Chapter 2: The Scheme of the ES [APP-023]. • On slopes profiled at up to 1:2.5 top soil is capable of being laid. At gradients significantly steeper than this there is an increased risk of top soil slipping down the slope and with it any planting. • Where steeper slopes are proposed, at Longacre Wood (see item I, section 2.71, Chapter 2: The Scheme of the ES), see above, the approach that will be adopted is the slope profile will be integrated with the adjoining landform, and where slopes are 1:2.5 or less, native trees and shrubs will be planted to achieve a woodland edge mix (refer to Figure 7.6: Landscape Mitigation Design of the ES [APP-061]) and is secured in the CEMP (refer to Outline CEMP of the ES [APP-174]), Table 3-1 Register of Environmental Actions and Commitments (REAC), Ref L7. • Elsewhere and where slopes may be steeper than 1:2.5 areas can be sown with grass seed, so as to achieve a greening effect, the limiting factor being the provision of a suitable growing medium, be that a stable angle of repose or an engineered solution that reinforces the slope and associated soils.
			The depth of topsoil spread should not normally exceed 300mm as per BS3882:2015 (Specification for Topsoil). Soil depths of 300mm up to a maximum of 400mm are



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			suitable for tree and shrub planting, the maximum recommendation as per the 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites' (Defra 2009). Topsoil depths of 300mm should be achievable on gentle slopes and, subject to stability considerations, on slopes of up to 1:2.5 steepness. If required for steeper slopes the topsoil depth can be thinner to a preferable minimum of 200mm with species adapted to such conditions such as birch and rowan selected as part of planting mixes for such areas. These are referenced at L15 in the Outline CEMP of the ES [APP-174] and hence incorporated into the design of the Scheme secured by Requirement 4 of the dDCO [APP-013].
			A consideration for planting and subsequent maintenance of trees and shrubs on slopes steeper than 1:2.5 would be the safety of operatives and the design would need to take this into account potentially utilising alternative methods, minimising the requirement for people to be on the slope. Measures could include access by climbing equipment and/or lifting platforms and are set out in the Landscape and Visual section of the REAC (page 17 onwards of the Outline CEMP of the ES [APP-174].
			To ensure that appropriate growing conditions are provided, topsoil spread for tree and shrub planting areas would in preference be material reused from site, being stripped and stored in accordance with the 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites' (Defra 2009). If imported material is required, this should be in accordance with BS3882:2015 with the topsoil classified to match as closely as possible to the characteristics of soils natural to the site or alternatively an equivalent manufactured topsoil in accordance with BS3882:2015. The development of a MCHW Series 600 and 3000 specification, in line with Table 3-1, Ref L15 of the REAC of the Outline CEMP of the ES [APP-174] would secure the application of the guidance.
Q1.6.4	Applicant	Please provide copies of the following documents referred to in paragraph 7.6.2 of the ES [APP-028]: a) Gateshead Landscape Character Assessment Report; b) Made in Gateshead: Urban Character Assessment; c) City of Sunderland Landscape Character Assessment; and d) Gateshead Conservation Area Character Statements, Strategies and Policy Guidelines.	These publicly available documents are available at: a) https://www.gateshead.gov.uk/media/8986/Gateshead-Landscape-Character-Assessment-Report/pdf/Gateshead_Landscape_Character_Assessment - Report.pdf b) https://www.gateshead.gov.uk/media/8774/Made-in-Gateshead-Urban-Character-Assessment/pdf/Made-In-Gateshead-Urban-Character-Assessment1.pdf?m=636657949177770000 c) https://www.sunderland.gov.uk/media/19068/Sunderland-Landscape-Character-Assessment-Report-2015-/pdf/30_Sunderland_Landscape_Character_Assessment_Report-2015-/pdf/30_Sunderland_Landscape_Ch



Ref No: 1.6	Question to:	Question: Landscape and Visual	Response:
Q1.6.5	Applicant	Paragraphs 7.11.5 and 7.11.6 of the ES [APP-028] set out details of regular surveying of specific viewpoints at years 6, 10 and 15. These surveys would be after the 5 year monitoring/management period has finished. a) Please explain how the selected viewpoints have been chosen. b) What measures would be taken in the event that new planting has not provided the required level of screening by the end of the 5 year period and how would these be secured? c) If no measures are able to be taken, what confidence is there that the predicted planting mitigation would be adequately secured by year 15 and that the impacts would be as assessed and predicted in the ES?	 a) The viewpoints were selected from those agreed with Gateshead Council, on the basis that they are representative of the occupants for residential properties, users of Public Rights of Way, or visitor attractions where the view and setting are intrinsic to the visitor's experience; and where the view would be mitigated as a result of the establishment of vegetation. b) Typically, planting would not provide substantial screening in year 5, as the majority of nursery stock would be planted at transplant size (less than 1m in height) and would have grown to less than 3 metres tall in five years. In line with paragraph 7.11.5, b, i of Chapter 7: Landscape and Visual of the ES [APP-028]—"a review of the degree to which planting is anticipated to continue to grow and provide the required levels of screening" would be undertaken. Measures to ensure that planting would secure the required level of screening would be set out in the Manual Contract for Highways Works, Series 3006 – Planting, which is incorporated into Table 3-1, Ref L15 in the Outline CEMP of the ES [APP-174]. This states in clauses 3006.87 to 3006.91, that should areas of planting be "missing, have died, or which in the opinion of Highways England are failing to make satisfactory extension growth" (MCHW Series 3006/89) then replanting would be undertaken during the next available planting season and would "be the same as the original stock at the time of planting, except that it shall be an additional year older for each year that has elapsed since the original stock was first planted, unless otherwise stated in Appendix 30/6". This would ensure that at the end of the 5-year planting establishment period, planting will have been planted and in situ and that in the opinion of the Applicant it is in a suitable condition, such that subject to ongoing management it will continue to grow and to provide the required levels of screening. c) In relation to addressing any planting mitigation beyond the 5-year establishment period, a



Ref No: 1.6	Question to:	Question: Landscape and Visual	Response:
			those predicted within Chapter 7: Landscape and Visual of the ES [APP-028].
Q1.6.6	Applicant	In respect to both landscape and biodiversity effects, the monitoring requirements set out in Table 16-2 of the ES [APP-037] state that the monitoring of the growth and establishment of the planning strategy by Highways England are implemented as part of the proposed development through the Benefits Realisation and Evaluation Plan (BREP). a) Please provide further details of the role and implementation of the BREP, including how it relates to the mitigation measures set out in Chapters 7 [APP-028] and 8 [APP-029] of the ES (it does not appear to be mentioned in either). b) Please provide a copy of the BREP. c) How will the BREP be secured through the dDCO, who would be responsible for approving it and how does it relate to the Handover Environmental Management Plan? d) Please add the BREP to the list of abbreviations in Chapter 0 [APP-021]?	 a) The Benefits Realisation and Evaluation Plan (BREP) was incorrectly referenced in Table 16-2 of Chapter 16: Summary of the ES [APP-037]. The BREP will be produced in draft by the Applicant during the detailed design stage of the Scheme and its aim is to set out and agree the scope of post opening evaluation to identify whether the anticipated benefits will be realised, and the Scheme objectives will be met. The evaluation will compare the anticipated costs, benefits and other impacts (dis-benefits) with the outturn situation at one and five years after opening. b) As the BREP has not yet been prepared and will only be produced in draft at the detailed design stage, a copy is not provided. However, the template for the BREP is appended at Appendix 1.6 A. c) Any ongoing monitoring requirements, for example those in relation to landscape and biodiversity effects, to mitigate the environmental impacts of the Scheme will be set out in the HEMP secured under Requirement 4(4) of the dDCO [APP-013] which will be developed from the CEMP secured under Requirement 4 of the dDCO. d) It is not proposed to add the BREP to the list of abbreviations in Chapter 0: Table of Contents, Glossary and Abbreviations of the ES [APP-21] as it does not form part of the application.
Q1.6.7	Applicant	Table 2-5 of the ES [APP-023] details the main phases of construction work and shows that there would be a period of approximately 18 months between the end date for the construction of the new Allderdene Bridge and the end date for the demolition/removal of the existing bridge. How has this period been taken into account in assessing the temporary landscape and visual impacts within the ES [APP-028]?	The assessment has been carried out in line with guidance for the assessment of visual effects in IAN 135/10 that requires an assessment "during the construction period, assuming a maximum visibility or maximum perceived change situation (i.e. when construction activity is at its peak for any given view) and noting how long that period would be likely to last". The assessment of construction effects for both landscape and visual effects has established the likely impacts and resulting effects at a point at which the maximum disturbance would occur (with the existing bridge and new Allerdene bridge in place, and associated construction compounds). A duration for these impacts is also provided in the description of potential impacts at Section 7.8, Chapter 7: Landscape and Visual of the ES [APP-028] and this has been considered in determining the magnitude of impact and likely significance of effects on landscape character or visual receptors. It is considered that this represents the reasonable worst-case scenario for the purposes of assessment of the construction works in the Allerdene Bridge area.



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Q1.6.8	Applicant	Details of the design of the replacement Allerdene Bridge are set out in the ES (paragraphs 2.7.5 to 2.7.18) [APP-023]. Explain in further detail how either of the proposed design options for the replacement bridge have sought to minimise and mitigate the resulting landscape and visual effects.	The Allerdene bridge deck structures have been designed to be a steel composite design. Whilst this has associated benefits in terms of weight and speed of construction it also achieves a slender profile to the design (depth of the bridge deck), when viewed in a horizontal plane, and avoids the need for vertical elements such as above deck supports or steel stays that in themselves could be perceived as being visually intrusive within the landscape and within views. Whilst the concrete structure would in the immediate period following construction appear new and conspicuous, it would with early weathering tone down, and be comparable in terms of appearance to the existing structure. The options for the Allerdene bridge and viaducts also seek to avoid unnecessary structures in the form of supporting piers, avoiding the appearance of an over engineered solution. The embankment option design utilizes a 1:3 slope profile to the embankment abutments, this would allow for the slopes to be planted using shrubs and trees that would replace the appearance of the existing bridge and embankment which is less heavily planted with an enhanced, more densely planted design.
Q1.6.9	Applicant	The assessment of visual impacts [APP-028] for both the year of opening and year 15 (the design year) identifies that there would be moderate adverse impacts for several residential properties but goes onto conclude in paragraphs 7.10.80 and 7.10.92 respectively that visual effects would not be significant. Please explain in further detail how these conclusions have been reached. In particular, what thresholds have been used and what is the justification for their use in determining that adverse impacts on a number of residential properties would not amount to an overall conclusion of significant adverse effects?	As outlined in IAN 135/10 (Annex 2 paragraph 3.13) and in GLVIA 3 paragraphs 6.4.2 – 6.4.5, there is no fixed formula for determining significance and a reasoned argument is to be provided. For the assessment of visual effects on the occupants of residential properties, this has been set out as a description of sensitivity, magnitude of impact and significance of effect for individual receptor groups in Appendix 7.1: Visual Effects Schedule of the ES [APP-121] and summarised in the significance of effect section at paragraphs 7.10.80 and 7.10.82 of Chapter 7: Landscape and Visual of the ES [APP-028]. Within the LVIA, a threshold of moderate adverse or greater has been defined as a significant effect. For those properties set along Lamelsey Lane (R7, R8 and P3), with a view of the existing bridge across the ECML, the Allerdene viaduct option would be noticeably different. On receptors of high sensitivity (as defined in IAN 135/10, as residents at home (R7 and R8) or people enjoying outdoor recreation (P3)) would be subject to a noticeable change in outlook equating to a moderate adverse magnitude of impact for the Allerdene viaduct option in Year 15. As a result, these receptors are identified as being subject to a significant effect in Year 15, however this is specific to a relatively small number of receptors that currently have a view of the existing Allerdene Bridge. Whilst moderate adverse effects (significant) have been identified these occur at the lower end of the scale of significance and for the Allerdene viaduct option only. It is considered within the context of the Scheme that whilst these would represent a locally significant effect, the overall conclusion using professional judgement for the visual assessment is that this would not amount to a significant effect.
Q1.6.10	Applicant	Paragraph 2.4.1 (Assessment Assumptions and Limitations) of the Arboricultural Report [APP-122] sates that a minimum working area of five metres (ten metres for certain works) will be required around the Scheme	a) The term 'Scheme Footprint' has been incorrectly applied in bullet points two and three of paragraph 2.4.1 of Appendix 7.2: Arboriculturally Report of the ES [APP-122]. For the purposes of these two bullet points the term 'Scheme Footprint' has been used to describe the area given over to the footprint of the



Ref No: 1.6	Question to:	Question: Landscape and Visual	Response:
		footprint and that all arboricultural features within these areas will need to be removed. However, it goes onto to state that arboricultural features outside the Scheme Footprint cannot be removed. a) Can the Applicant clarify this contradiction and explain what comprises the Scheme Footprint? b) In addition to the Allerdene Bridge, which areas of the Proposed Development would involve a working area of up to ten metres?	highway as referenced in bullet point one. A working area has been applied to the 'footprint of the highway' rather than the 'Scheme Footprint' which includes all land within the red line as defined in Figure 2.1: Scheme Location Plan of the ES [APP-038]. Bullet point six is correct in its use of the term 'Scheme Footprint' insofar as it assumes arboriculture features cannot be removed in instances where they are positioned outside the red line. The relevant section in 2.4.1 should read: This assessment has been undertaken based upon the following assumptions: • That all arboricultural features within the footprint of the highway will need to be removed. • That a minimum working area of five metres will be required around the footprint of the highway and that all arboricultural features within this area will need to be removed. That an increased working area of up to ten metres around the footprint of the highway will be required around the Allerdene Railway Bridge and that all arboricultural features within these areas will need to be removed. These are the areas within which it is assumed that vegetation will need to be removed in order to facilitate access for construction. The working area is extended to ten metres in the vicinity of the Allerdene Bridge in order to account for the larger machinery that is likely to be required in order to construct this structure. • That where the proposed working area encroaches into the root protection area of adjacent arboricultural features then this will result in adverse impacts including root severance and soil compaction. It is further assumed that these impacts will have such a large adverse impact on affected trees that they will become unsustainable and therefore need to be removed. • That in instances where a substantial proportion of a tree group or wooded area is to be removed then the remaining part of the tree group or wooded area has been identified as unsustainable and has also been identified as needing to be removed. • That all arboricultural feat



Ref No: 1.6	Question to:	Question: Landscape and Visual	Response:
			The working area was extended to ten metres in the vicinity of the Allerdene Bridge in order to account for the larger machinery that is likely to be required in order to construct this structure.
Q1.6.11	Applicant	Paragraph 5.2.1 of the Arboricultural Report [APP-122] states that opportunities to retain veteran tree T18 should be explored including accurate positioning in relation to proposed works and potential tree protection measures. a) Please provide an update regarding this veteran tree including confirmation of whether or not it can be retained and an outline of any necessary protection measures for its retention. b) How has the potential loss of T18 been taken into account in the ES? c) The Arboricultural Report (paragraph 7.1.2) also states that potential adverse impacts regarding trees protected by Tree Preservation Order No.21 should be discussed with Gateshead Council. Please provide an update on such discussions.	 a) Paragraph 5.2.1 of Appendix 7.2: Arboriculturally Report of the ES [APP-122] identified veteran tree T18 for removal erroneously. However, it is now confirmed that this tree is able to be retained, as shown in the Figure 7.6: Landscape Mitigation Strategy contained in, Sheet 2a of 5, Landscape Mitigation Design – embankment option [APP-061]. To ensure sustainable retention of tree T18, protective measures would need to be specified in line with the requirements contained within British Standard 5837: 2012 "Trees in relation to design demolition and construction recommendations" which would be included within the Outline CEMP. A new provision within the REAC (table 3-1 of the Outline CEMP) will be provided that states: Protection measures would be employed that are commensurate with the threat posed by adjacent works and in accordance with British Standard 5837:2012. These are likely to include but may not be limited to, ground protection to avoid direct and indirect damage to the trees rooting structure and secured fencing to prevent impact with the tree and prohibit access within the root protection area. b) Notwithstanding its earlier identification for removal, the ES has anticipated that this tree would be retained and has therefore not provided compensation for its loss. No further discussions have taken place with Gateshead Council since authorship of the Arboricultural Report as it is not currently anticipated that trees subject to a Tree Preservation Order would need to be removed.



Table 1.8 – Applicant's Responses to the ExA's First Written Questions - Noise and Vibration

Ref No: 1.7	Question to:	Question: Noise and Vibration	Response:
Q1.7.1	Applicant	Table 11-7 of the ES [APP-032] details the operational road traffic noise effect level criteria. Explain how these external noise effect level criteria have been established?	The noise effect level criteria have been presented to correlate with the Lowest Observable Adverse Effect Level (LOAEL) and Significant Observable Adverse Effect Level (SOAEL) set out in national policy in the National Planning Policy Framework (NPPF) and the Noise Policy Statement for England (NPSE). The adopted LOAEL value for the daytime is aligned with the onset of Moderate Community Annoyance as presented in the World Health Organisation (WHO) Guidelines for Community Noise 1999. The adopted daytime SOAEL is aligned with the threshold embodied within the Noise Insulation Regulations and the onset value of cardiovascular health effects adopted by the WHO. For the night-time period the LOAEL is aligned with the recommended night noise guideline presented in the WHO Night Noise Guideline for Europe 2009 whilst the SOAEL is aligned with the Interim target from the same WHO Guidelines. The WHO derived these values based on its literature review of available research. The noise index used for road traffic noise in the UK (LA10) is converted to the day-time noise metric used by WHO by subtracting 5dB which accounts for the 3dB façade to free-field conversion and a 2dB L10 to Leg adjustment.
Q1.7.2	Applicant	Paragraph 2.7.1 (n) of the ES [APP-023] states that a Thin Surface Course System (TSCS) will be installed for all sections of the A1 and slip roads to the roundabouts. a) Please provide further details of TSCS with particular regard to its 'low noise' performance attributes, durability and maintenance requirements. b) b) Is the wording of measure N1 of the REAC [Table 3-1 of APP-174] sufficient to ensure that TSCS is installed with the necessary specifications (including thickness) to maximise its low noise potential?	a) A TSCS low noise surface (LNS) has higher noise absorption characteristics than alternative surfaces such as Hot Rolled Asphalt (HRA) and as such absorbs a proportion of the tyre interface noise. For this reason, it is only effective where tyre noise is the dominant noise source (as opposed to engine noise). This tends to occur at speeds more than 75 kph. LNS is therefore only usually considered on high speed roads. For the completed assessment, the surface corrections that have been applied are those stated for use within Annex 4 of the DMRB Volume 11, Section 3, Part 7, HD 213/11. The Low noise characteristic of a surface is defined by its 'Road Surface Influence Value' (RSI). The DMRB advises (paragraph A4.41 of Annex 4) that for calculations undertaken using the Calculation of Road Traffic Noise 1988 (CRTN), the surface correction for thin surfacing systems should be assumed to be 0.7*RSI and its performance capped at a maximum of -3.5dB. It then goes on to say that if there is no information available for a specific surface, then a -2.5dB correction should be applied for existing low noise road surfaces and -3.5dB correction applied for a new low noise road surface (A4.24 and A4.26). The effectiveness of LNS is dependent upon wear to, and clogging of, the surface and as such requires more cleaning and maintenance than alternative surfaces. b) The DCO application commits to the use of a TSCS (LNS) on the A1 and slip roads 'to reduce noise' and it is a specific requirement [N8] of the Outline CEMP [APP-174]. It is considered that this is enough to ensure a suitable installation at the construction phase. To ensure the installed surface is suitable, the wording of measure N1 of the REAC [Table 3-1 of APP-174 is to be amended to the following: "A Thin Surface Course System (TSCS) for all sections of the A1 and slip roads up to



Ref No: 1.7	Question to:	Question: Noise and Vibration	Response:
Q1.7.3	Applicant	Table 16.1 of Appendix 11.16 of the ES [APP-160] shows that 4 dwellings would experience, during operation, an increase in noise nuisance of between 20% and 30%. a) Where are these properties located? b) With cross-reference to other documents as appropriate please provide further explanation of how the noise nuisance levels have been calculated for these properties?	The Certification Body, System Installation and Performance Trial (SIPT) inspection protocol shall be developed to contain an additional declaration in achieving the desired road/tyre noise level influence. This should be specified as meeting a minimum Level 2 or 3 as stated in Table 9/17 of the SHW MCHW." (a) The addresses of these four properties are as follows: 1. Ravensworth Park Bungalow, Banesley Lane, Lamesley, NE11 0HS 2. The Flat, Ravensworth Park Farm, Banesley Lane, Lamesley, NE11 0HS 3. 98 Ashford, Allerdene, NE9 6YG 4. 57 Woodford, Allerdene, NE9 6DQ As shown in Appendix 1.7 A, the first two properties are adjacent to each other on the north side of Banesley Lane, well removed from the A1.The third and fourth properties are on the north side of the A1 at Allerdene, the closest being 98 Ashford which is approximately 160m north-east of the A1. b) It should be noted that the use of the phrase 'noise nuisance' in the context of the assessment has a different meaning to that employed in law (civil law and the Environmental Protection Act 1990, as amended) as road traffic noise is exempt from nuisance proceedings. The noise nuisance levels have been calculated in accordance with the method detailed within the DMRB noise assessment guidance adopted for the assessment (as in this case), are outlined in paragraphs A1.25 to A1.38 of HD 213/11 and include an assessment of noise nuisance applying the guidance presented in Annex 6: 'Assessing traffic noise and vibration nuisance'. It is of note that in the latest revision of the DMRB noise assessment guidance (as contained in LA111) — which post-dates the ES - the noise nuisance guidance and need for a noise nuisance assessment has been removed. With specific consideration to the four properties, the noise level changes predicted which result in the changes to their nuisance bandings are +0.9dB to +1.2dB in the year of opening. These equate to a minor adverse magnitude of change at worst, which in practical terms would unlikely to be perceptible to the r
Q1.7.4	Applicant	Paragraphs 11.10.43 and 11.10.59 of the ES [APP-032] explain that the number of receptors between the Lowest Observed Adverse Effect Level (LOAEL) and the Significant Observed Adverse Effect Level (SOAEL) generally increase, whilst the number of receptors within the SOAEL generally decrease. In both cases please summarise how these adverse impacts would be mitigated and minimised?	In both cases the mitigation and minimisation requisite in policy (NPPF paragraph 180(a)) is provided by a combination of the use a of low noise surface (LNS) and the alignment of road noise barriers as shown in Figures 11.7a Noise Barrier - Birtley Barrier [APP-083] and 11.7b Noise Barrier - Lady Park Barrier [APP-084].
Q1.7.5	Applicant	Appendix 11.12 of the ES [APP-156] lists the diversion	When road closures are required to facilitate construction works, these will follow the



Ref No: 1.7	Question to:	Question: Noise and Vibration	Response:			
		routes to be used when road closures are required to facilitate construction works. a) Please provide a plan/map showing these diversion routes. b) Clarify which diversion route would be required for each closure. For each of the diversion routes, set out the period of time when they would be used. c) Provide further details (in addition to paragraphs 11.10.23 to 11.10.27 of the ES [APP-032]) of the assessment (including increases in traffic movements and corresponding noise/vibration increases) that has been carried out of the noise and vibration effects arising from the use of these diversions during construction?	agreed diversions routes already in place maintenance activities where road closure in the Construction Traffic Management P 174] a) See Appendix 1.7 B of the Outline CEN b) The requisite information is already corplan showing the required diversion route described in Table 12.1 of Appendix 11.12 the ES [APP-156] - Diversion routes for route to the construction of Table 12.2 of Appendix 11.12 for periods c) The increase in noise/vibration levels rediversion routes were not explicitly quantities [APP-032], with the premise being that rise to adverse impacts when in use. Diversion to the construction of Table 12.2 and in the final column of Table 12.2 and Guidance [APP-156]. This appet the limited number of closures requiring definitions.	es are required. It lan Appendix Bound Appendix Bou	Further details of the Outline Control of the	includes a polisted and versions' of ovided in a cusing the pration of the kely to give alitatively as ration of the gislation, tionate given
			diversions. To inform this response, the changes in b while the diversions are in place have been undertaken based on the off peak (19:00 the night time, assuming that traffic speed	en calculated. Th – 07:00) flows, a	ese calculation s the closures v	s have been will be during
			To inform this response, the changes in b while the diversions are in place have bee undertaken based on the off peak (19:00	en calculated. Th – 07:00) flows, a ls on the diversio	ese calculation s the closures v on routes will no	s have been will be during
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			To inform this response, the changes in bowhile the diversions are in place have been undertaken based on the off peak (19:00 the night time, assuming that traffic speed Link A693 Blind Lane	en calculated. Th – 07:00) flows, a Is on the diversion Change in NB Closure	ese calculation is the closures will no BNL, dBA SB Closure	s have been will be during of change. SB and NB Closure
			To inform this response, the changes in bowhile the diversions are in place have been undertaken based on the off peak (19:00 the night time, assuming that traffic speed Link A693 Blind Lane A167 North Road	en calculated. The order of the calculated of the calculated. The order of the calculated of the calculated. The calculated of the calcula	ese calculation is the closures will no BNL, dBA SB Closure	s have been will be during of change. SB and NB Closure 4 7
			To inform this response, the changes in bowhile the diversions are in place have been undertaken based on the off peak (19:00 the night time, assuming that traffic speed Link Link A693 Blind Lane A167 North Road A167 Durham Road A195 Western Hwy A182 Washington Hwy (S of A1321)	en calculated. Th – 07:00) flows, a ls on the diversion Change in NB Closure	ese calculation is the closures will not be seen and the closure will not be seen as a	s have been will be during of change. SB and NB Closure 4 7 6
			To inform this response, the changes in bowhile the diversions are in place have been undertaken based on the off peak (19:00 the night time, assuming that traffic speed Link A693 Blind Lane A167 North Road A167 Durham Road A195 Western Hwy	en calculated. Th – 07:00) flows, a ls on the diversion Change in NB Closure	ese calculation is the closures will not be seen and the closure will not be seen as a	s have been will be during of change. SB and NB Closure 4 7 6
			To inform this response, the changes in bowhile the diversions are in place have been undertaken based on the off peak (19:00 the night time, assuming that traffic speed Link Link A693 Blind Lane A167 North Road A167 Durham Road A195 Western Hwy A182 Washington Hwy (S of A1321)	cn calculated. The 07:00) flows, a ls on the diversion on the diversion of the control of the co	ese calculations the closures will not be seen to be se	s have been will be during of change. SB and NB Closure 4 7 6 2 1
			To inform this response, the changes in bowhile the diversions are in place have been undertaken based on the off peak (19:00 the night time, assuming that traffic speed Link A693 Blind Lane A167 North Road A167 Durham Road A195 Western Hwy A182 Washington Hwy (S of A1321) A182 Washington Hwy (N of A1321)	cn calculated. The 07:00) flows, a ls on the diversion on the diversion of the control of the co	ese calculation is the closures will not be seen and the closure will not be seen as the closu	s have been will be during of change. SB and NB Closure 4 7 6 2 1 2
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Ref No: 1.7	Question to:	Question: Noise and Vibration	Response:
			and Kingsway South, temporary speed reductions could be considered to reduce the predicted noise levels.
Q1.7.6	Applicant	Paragraph 11.8.4 of the ES [APP-032] states that some out of hours working will be required. a) Please provide a list of all working scenarios and locations where out of hours working will take place, including the likely duration and frequency of such works in each instance. b) For Locations 1 (Willowbeds Farm), 2 (Lamesely Vicarage and Cottages) and 3 (Salcombe Gardens) (as described in paragraph 11.10.22) set out the frequency and duration of the out of hours working taking account of all the applicable working scenarios.	a) The potential out of hours working, the working areas in which they may occur are listed below. 1) Allerdene Bridge Works –working areas 2, 4, 7 2) High Pressure Mains Diversion – working area required for NGN works 3) Central Reservation Hardening – working areas 3, 5 4) Road Planning/surfacing – working areas 3, 4, 5 5) Installation of Gantries – working areas 3, 4, 5 6) The removal of the North Dene Footbridge – working area 5 The ES has assessed out of hours works on Allerdene Bridge (item 1 above) over up to seventeen consecutive weekends. The precise timings and durations will continue to be refined through discussions with Network Rail but the ES assumptions are considered to be a worst-case scenario as extended rail possessions over bank holiday periods may now enable the works to be compressed. The ES assessment results for these are set out in Table 5-9 of Appendix 11.5 [APP-149] 'Construction Criteria, Data and Prediction Results' of the ES Chapter 11 Noise and Vibration of the ES [APP-032]. The results from this table are summarised in Table 11-22 of the ES and discussed in paragraphs 11.10.18 to 11.10.22 beneath that table. The NGN works will take place at the very start of the construction programme with out of hours work only undertaken for a short period which is not predicted to result in any significant impact. The precise duration of this working phase is not yet known. The frequency and duration of the other possible out of hours works described at points 3-6 above is also unknown at this stage. However, the Development Integration Partner is very confident that these would not take place for more than one or two nights at a time at discrete locations.
			Due to the transient nature and short duration of these works the potential noise impacts at any specific receptors are considered to be insignificant. The rationale for the adoption of this position is further explained in 11.4.37 of Chapter 11 Noise and Vibration of the ES [APP-032]. b) The assessment in the ES was undertaken on the assumption that the works on Allerdene Bridge which could result in significant effects at Assessment Locations 1, 2 and 3 would take place over seventeen consecutive weekend
			closures, with timings restricted to coincide with the possessions agreed with Network Rail. The details of this will continue to be developed despite that the potential for some works to be carried out during the Christmas rail closures the overall duration of the night working is currently thought to be over eighteen



Ref No: 1.7	Question to:	Question: Noise and Vibration	Response:
			weekends in total but with out of hours working restricted to the between 00:50 – 07:45 on Sundays. Some out of hours working identified at points 2, 4 and 5 above could potentially be audible at Assessment Locations 1, 2 and 3 but these are expected to be very short-term and transient in nature.
Q1.7.7	Applicant	Table 11-20 of the ES [APP-032] sets out the construction noise assessment locations and criteria. Please state how many dwellings are contained within each location?	The approach of the construction noise assessment was to select assessment locations representative of the most exposed receptors along the length of the Scheme and within the construction noise study area i.e. those closest to the Scheme. The worst-case assessment outcomes presented for the assessment locations are only representative of other receptors that are in comparable proximity to, and would be similarly affected by, the construction activities. For the average-case assessments, the outcomes predicted at the assessment locations may be more widely representative. The adopted receptor locations which are set out in Table 11-20 of the ES [APP-032] are listed in the table in Appendix 1.7 C with the approximate numbers of noise sensitive receptors (NSRs) for which the worst-case and average-case scenarios may be applicable. These data were not included in the ES and were produced specifically to inform this answer.
Q1.7.8	Applicant	Paragraphs 11.10.9 – 11.10.11 and 11.10.36 of the ES [APP-032] describe works with levels above SOAEL but with a duration that would be below the defined criteria. a) Please provide details of the expected duration of each of these works and state what confidence there can be that the works would not exceed the defined criteria? b) What mitigation measures would be implemented in the event that the duration of any of these works exceeds the defined criteria?	Please refer to the table in Appendix 1.7 C. a) The references to potential short-term exceedences of the SOAEL, mentioned in paragraphs 11.10.9 – 11.10.11 and 11.10.36 of Chapter 11 Noise and Vibration of the ES [APP-032] are only predicted to result from worst-case assessment scenarios, when all plant are operating continuously and simultaneously, at the closest possible position to the assessment location. As such, these conditions are expected to happen rarely if at all. Notwithstanding this, the current construction programme has been reviewed and it has been identified that the duration of each of these construction activities (including both average and worst-case operations) is programmed to be less than five to ten working days, with each activity occurring at a separate point in time (i.e. allowing hiatus between each activity). Bearing in mind that the levels in excess of the SOAEL are only predicted to arise for worst-case works (i.e. when in close proximity to the identified receptors) and that such worst-case works would constitute only a small proportion of the full working durations, there is a high confidence that the durations associated with the significance criteria would not be exceeded. The Delivery Integration Partner has also confirmed a high level of confidence that actual operational durations will be within those assumed in the construction programme.
			b) The mitigation measures set out at paragraph 11.9.5 of Chapter 11 Noise and Vibration of the ES [APP-032], which have been included at N5 of the Outline CEMP [APP-174], comprise the Best Practicable Means (BPM) to minimise noise and disturbance. The application of these measures is expected



Ref No: 1.7	Question to:	Question: Noise and Vibration	Response:
			regardless of the duration of works or anticipated exceedance of the defined criteria and may include specific periods of respite if necessary. It is not possible to be prescriptive in terms of specific mitigation solutions at this stage, as solutions will need to be tailored to the nature and location of the noise source, how the noise impacts receptors and the juxtaposition between source and receptor. However, the selected mitigation measures will be designed to ensure that construction noise levels comply with the noise limits set out in Table 5-1 of Appendix 11.5 'Construction Criteria, Data, and Prediction Results' of the ES [APP-149]. It is expected that these measures would include measures such as: • Shutting down of intermittently operating plant; • Use of silenced plant; • Use of quietest available plant; and • To meet relevant EU Directive criteria. As stated in the final point of N5 – if temporary significant noise or vibration effects cannot be reasonably prevented, and the works being undertaken are crucial to progressing a particular phase of the Scheme, then separate liaison with the local authority will be undertaken to agree that best mitigation techniques are being applied.
Q1.7.9	Applicant	Paragraph 2.7.49 of the ES [APP-023] explains that the NGN gas mains would be diverted using micro tunnelling, open cut trenches and trenchless techniques. Including any cross-references to relevant sections of the application documents, please clarify and explain how the assessment of noise and vibration effects of these works has been carried out?	The assessment was undertaken based on BS 5228:2009+A1:2014, by modelling the predicted noise levels at receptor locations using noise source data from the types of plant typically used for this type of operation and comparing the resulting noise level against appropriate criteria also determined in accordance with BS5228:2009+A1:2014 Part 1. Additional detail can be found in Section 11.4 of Chapter 11 Noise and Vibration of the ES [APP-032]: Assessment methodology paragraphs 11.4.16 to 11.4.21 of Chapter 11 Noise and Vibration of the ES [APP-032] which fall in the sub headings of 'Approach to Assessments' and 'construction noise'. The assessed plant, that would be required for the micro tunneling, open cut trenches and trenchless techniques, are set out in the NGN3 scenario in Table 5-2 of Appendix 11.5 'Construction Criteria, Data and Prediction Results' [APP-149]. These comprise a dumper tuck, an excavator, a mini digger, a generator, compressor and a slurry plant all of which were assumed to be running continuously throughout the assessment period. The assessment has been undertaken by predicting the noise levels at the noise sensitive receptor locations that would result from the operations being undertaken from the centre of the working area ('average case') and from the part of the working area which is closest to the noise sensitive receptor ('worst-case'). A summary of the predicted average and worst-case daytime 'with mitigation' construction noise levels above the SOAEL are presented in Table 11-2 of the ES [APP-032].



Ref No: 1.7	Question to:	Question: Noise and Vibration	Response:
			predicted using the historic data and empirical prediction procedures in BS 5228:2009+A1:2014 Part 2 and the results are presented in Table 11-23 of the ES.
Q1.7.10	Applicant	The locations of the proposed construction compounds are provided in Figure 2.3 of the ES [APP-040]. This includes both the main construction compounds and separate working compounds. Further details of the layout of the compounds is provided in Appendix A of the outline CEMP [APP-174]. a) Cross referencing to existing application documents as appropriate, please set out the potential noise and vibration effects that would arise from the use of these four compounds and how these would be mitigated? b) How would the construction compounds be used throughout the day/night, including outside of the standard scheme construction hours? Would there be any potential for noise impacts at the compounds outside of the standard scheme construction hours (e.g. from the use of site generators)? c) The layout of the construction compound at Junction 67 includes a topsoil screening bund. Please provide further details of the height, construction and form of this bund. How would such details be secured through the dDCO?	 a) The worst-case noise effects from the use of the construction compounds (the mobilisation and de-mobilisation) have been explicitly assessed in Table 11.21 of Chapter 11 Noise and Vibration [APP-032]. However, these effects will be relatively short-term and the noise from the ongoing use of the compounds during the construction phase is not anticipated to result in noise or vibration effects that would be significant at receptor locations. This assumption is possible due to the relatively benign uses that will take place in the compounds. These will include staff and contractor parking and welfare facilities, security, site offices, secure stores and laboratory facilities. Where equipment or aggregate storage is included, these facilities will be sensitively sited, away from noise sensitive receptors(as shown in the indicative layouts of two of the compounds shown in Appendix A of the Outline CEMP [APP-174]). Other noise control measures set out in the Outline CEMP will ensure that any unanticipated noise sources are adequately controlled. These may include the use of suitability selected and treated plant, physical mitigation and management controls on materials handling. The specific measures identified for mitigating impacts as a result of the operation of the construction compounds are included in Table 3-1 of the Outline CEMP [APP-174]. Those of particularly relevance are: The hours restrictions (G4); Use of mains electric powered plant where possible (N5); Use of silencers, mufflers and enclosures (N5); Plant selection, siting and shut-downs (N5); Use of screens/hoarding (N5); Communication, monitoring and respite periods (N5); and Proactive management (N6). The application of the Best Practicable Means (BMP) and adherence to the Considerate Constructors Scheme (CCS) will also help to ensure that noise impacts are adequately controlled. b) As stated at 1.3.12 of Chapter 1 'Introduction' of th
			grassed topsoil of the bunds on the edges of the compounds closest to residential receptors. Further details, including the heights of bunds, will be included in the



Ref No: 1.7	Question to:	Question: Noise and Vibration	Response:
			final CEMP to be submitted for approval by the Secretary of State through Requirement 4 of the dDCO [APP-013]., to optimise their effectiveness.
Q1.7.11	Applicant	Paragraphs 11.9.1 and 11.9.3 of the ES [APP-032] set out details of a new acoustic barrier at Birtley. This would be secured in the outline CEMP [APP-174]. a) Please provide further details of the design and appearance of this noise barrier. b) How would the approval of the final details of this noise barrier and the timing of its construction be secured through the dDCO? c) What measures would be in place to ensure its long term maintenance and retention?	 (a) The location and alignment of the noise barrier is shown in Figure 11.7a of the ES 'Noise Barrier – Birtley Barrier' [APP-083] and it will be aligned as close as possible to the carriageway. It will be continuous with no gaps in its length or height and will be a minimum of 3m in height above local ground level. The minimum performance requirement will be derived in accordance with advice in Section 5.3 of LA 119 (November 2019) and BS EN 1793-1. The final details of the noise barrier would be confirmed at the detailed design stage but it may comprise close boarded timber fencing as shown in the example pictured at Appendix 1.7D. b) Item N5 of the Outline CEMP [APP-174] requires that an acoustic barrier approximately 670m long and 3 m high must be provided next to the northbound carriageway along the highway boundary at Lockwood Avenue as shown on Figure 2.4 'Environmental Masterplan' of the ES [APP-041]. Requirement 4(3) of the dDCO [APP-013] requires that the construction of the authorised development must be carried out in accordance with the approved CEMP. This provides an obligation for the barrier to be installed in accordance with set dimensions but provides flexibility on the precise specification and timing of provision. The development of the Outline CEMP into the CEMP itself will allow for further detail to be set out on the design of acoustic barriers if required. c) The barrier will be installed within the boundary of the A1 and will thereafter form part of the maintenance responsibility of the Applicant as the Strategic Highway Authority for the A1.
Q1.7.12	Applicant	Section 11.11 of the ES [APP-032] sets out the proposed noise and vibration construction monitoring proposals. Section N5 of the outline CEMP [APP-174] secures monitoring measures. a) What measures would be in place to ensure that construction noise and vibration effects are no worse than those predicted in the ES for activities where no noise monitoring is proposed? b) Provide further details of the noise monitoring programme referred to in section N5 of the CEMP. Would this programme need to be previously agreed with the local authority? How would this be secured through the dDCO? c) How would the measures set out in the final bullet point of N5 (relating to temporary significant noise/vibration effects) of the CEMP be implemented,	 a) Point N5 of Table 3-1 of the Outline CEMP [APP-174] commits to a programme of noise monitoring for out of hours work. This noise monitoring programme will cover the works where possible significant noise effects have been identified. Noise effects in other areas should be no worse than the worst-case levels predicted in Tables 5-8 and 5-9 of Appendix 11.5 of the ES 'Construction Criteria, Data and Prediction Results' [APP-149] given that those predictions were made will all plant operating simultaneously at the closest possible area of the construction works to the receptor. These worst-case scenario conditions are unlikely to ever arise in practice. The overriding duty to comply with the BPM to avoid noise impacts, irrespective of the predicted levels at receptors, provides another layer of protection. b) Out of hours monitoring will comprise a combination of attended and unattended monitoring with noise level triggers set to alert contractors if noise levels exceed the applicable construction noise criteria (as set out in Table 11-20 of the of ES Noise and Vibration Chapter [APP-032]). Attended monitoring will take place at assessment Locations 1, 2, 3 and 7 (which are set out in Table 11-20 of Chapter



Ref No: 1.7	Question to:	Question: Noise and Vibration	Response:
		including any necessary agreement with the local authority, community consultation and relevant timescales?	 11 Noise and Vibration [APP-032] and shown in Figure 11.1 'Construction Phase Study Areas and Assessment Locations' [APP-145] as new phases of out-of-hours work commence. The monitoring programme proposed in the Outline CEMP [APP-174] will be refined in the final CEMP to include this commitment prior to submission for approval by the Secretary of State through Requirement 4 of the dDCO [APP-013]. c) If programmed works are identified as likely to give rise to noise levels that exceed the criteria (set out in Table 5-1 of Appendix 11-5 of the ES 'Construction Criteria, Data and Prediction Results' [APP-149] – liaison with the local authority will be undertaken with a view to agreeing suitable mitigation as soon as reasonably practicable. Liaison will also take place if monitoring results relating to new work stages, or conducted in response to complaints, are indicative of exceedances. In either case; the form of mitigation which would be most effective in the particular circumstances will be discussed, agreed and implemented forthwith. The effectiveness of the adopted mitigation will be reviewed via further monitoring and liaison.



Ref No: 1.8	Question to:	Question: Economic and social effects (including Population and Human Health)	Response:
Q1.8.1	Applicant	Paragraph 12.4.35 of the ES [APP-033] refers to a baseline using publicly available information gathered from (amongst others) 'NOMIS'. As NOMIS is a term that may not be familiar to all Interested Parties and is not included in the list of abbreviations [APP-021], please clarify to what it refers.	A qualitative high-level desk-based assessment has been carried out for the local economy, using publicly available data, such as NOMIS, to understand the baseline conditions. NOMIS is a service provided by the Office for National Statistics providing up-to-date UK Economic impacts of significance labour market statistics from official sources. The website can be found on this link: https://www.nomisweb.co.uk/
Q1.8.2	Applicant	In terms of effects on people, the Study Area of the Local Economy is stated as being the Gateshead Council administrative area [paragraph 12.6.9 of the APP-033]. a) Please provide justification for only choosing this administrative area being chosen and not adjacent administrative areas located in proximity to the scheme (e.g. Sunderland City Council)? b) What effects are predicted for other areas outside of Gateshead Council?	a) The assessment of local economy in Chapter 12 Population and Health [APP-033] is focused on the direct impacts on the local economy likely to result from the Scheme. For the purpose of this assessment, the scope was the Gateshead Council administrative area as this is the area in which the Scheme is located. Only by a major diversion of the A1 would it be possible for the Scheme to take place in any other administrative area. The direct spend on employment for the construction and maintenance of the Scheme, and in local businesses, is most likely to be felt adjacent to the scheme boundary, and in proximity to the construction compounds, and therefore in the Gateshead area. The Scheme has been described in the Outline Business Case (OBC), published in 2019, as important to "the economy of the North East, supporting both regional and local connectivity." The wider region is likely to feel the benefits of reduced congestion resulting from Scheme. However, the assessment in Chapter 12 of the ES [APP-033] has not calculated and quantified the specific economic impacts of the scheme either within the Gateshead area or beyond. The assessment of the Local Economy in Chapter 12 of the ES [APP_033] was based on emerging guidance at the time and is not a topic included in recent published guidance (DMRB Volume 11, Section 3, Part 6, LA 112).
			While the geographic scope has been set as Gateshead Council there is an awareness that effects are likely to be felt beyond the scope boundary which has been reflected in the assessment. Enhancement measures suggested in Chapter 12 of the ES [APP-033] for Local Economy included recommendations to support employment and investment in the north-east region, and put in place a Construction Traffic Management Plan to minimise disruption to road network users (paras 12.9.20 and 12.9.21, [APP-033]).
			b) The economic benefits expected to result from the improvements to the stretch of the A1 between Birtley to Coalhouse are set out in the OBC for the Scheme. The OBC states that the A1 is 'important to the economy of the North East, supporting both regional and local connectivity'.
			The North East region has a large reliance on private car use, and by improving the existing issues of congestion on this stretch of the A1, the Scheme will improve accessibility to jobs and services within the region, whilst also supporting regional growth and development. Connectivity to the economically important locations of the



Ref No: 1.8	Question to:	Question: Economic and social effects (including Population and Human Health)	Response:
			Metrocentre and Newcastle Airport will also be improved through the delivery of this scheme. The OBC states that the Scheme will support local aspirations to develop a number of sites in close proximity, enabling "Newcastle and Gateshead to deliver their development plans creating employment and housing".
Q1.8.3	Applicant	In paragraph 12.7.22 of the ES [APP-033] rail travellers have been assessed as having a medium sensitivity value. Taking account of the sensitivity criteria set out in Table 12-8 of the ES [APP-033] and the high level of usage of the East Coast Main Line, please provide further justification for arriving at this sensitivity value rather than a higher value (high or very high)?	The Scheme involves construction of a new Allerdene Bridge and demolition of the existing Allerdene Bridge which crosses over the East Coast Main Line (ECML). The ECML is an important rail route connecting the North and South of the country. Demolition of the existing Allerdene bridge, and construction of the new bridge, cannot be undertaken without closing the rail line between Chester-le-street and Newcastle Central rail stations, and therefore there is the potential for impacts to be felt by rail travelers from disruption to rail travel. Rail travelers were assigned a Medium sensitivity, using the criteria set out in Table 12-8 of the ES [APP-033] as follows; • A non-vulnerable receptor with limited capacity to change. • A limited range of alternative facilities, access arrangements or opportunities are available within an easily accessible distance. • A moderately, or semi frequently accessed resource. • Regional importance. Rail travelers have a degree of flexibility in their capacity to travel; either by planning alternative rail travel arrangements (different date, or time of travel), utilising rail replacement services provided by train operators, or seeking out alternative modes of transport. Road routes via car, bus or coach provide an accessible alternative for local journeys, and regional airports can provide opportunities for longer distance travel (e.g. London to Edinburgh). For the purpose of the assessment it was assumed that works interfacing with the rail line would be carried out at night and on weekends, times during which there are fewer rail services and therefore fewer rail travelers accessing the line. Combining this information with the regional importance of the ECML, a Medium sensitivity was concluded for rail travelers. We now know that construction works will be programmed in consultation with Network Rail and rail line disruptions will be limited to overnight possessions, weekend possessions, and possible Christmas blockades. According to the current programme of works, all



Ref No: 1.8	Question to:	Question: Economic and social effects (including Population and Human Health)	Response:	Response:		
			travelers will not experience any disruption to their journeys.			
Q1.8.4	Applicant	Paragraph 12.8.11 of the ES [APP-033] explains that there would be some disruption to rail travel during construction. Please set out in more detail the frequency and duration of track closures that would be required during construction works.	railway will be carried out during RoR Possessions. These possessions are Sunda between 00:50 – 07:45. Additionally, there will be opportunities to take advantage major engineering possessions over bank holiday periods. In these periods and d			
			possible to programme wo		void additional possessions of ticipated possessions are as	
			existing OLE from the May '21 – Jan '22;	ne bridge soffit and transfer	configuration (removing the ring to temporary stanchions) –	
			operational RailwayPreparation of the e	 March – April '22; existing bridge for demolition 	emolition – saw cutting the deck into	
			sections in readiness for removal. – Jan – Feb '23; • Removal of the existing mid span and backspans of the bridge – Feb – June '23; and • Final reconfiguration of the OLE onto new permanents.			
			 Mar'23. and Alternatively (or add times when major e which least impact of the second sec	ditionally), use the Christma ngineering works are carrie	s possessions, which are the d on sicne this is the point at ristmas Day and Boxing Day -	
Q1.8.5	Applicant and Gateshead Council (parts d and e only)	Table 12-17 of the ES [APP-033] provides details of the public rights of way (ProW) to be temporarily stopped up and the provision of	a) Details of the estimate given below:	ated length of time of PRoV	/ closures and diversion routes	
	3,	substitute routes. a) Provide details of the estimated length of time over	PRoW to be stopped	New public right of way to be substituted	RESPONSE	
	which each temporary stopping up of a public right of way would occur. b) Please also provide details of a safety audit for the proposed diversion routes, with particular regard to any diversions where there may be conflict with vehicular traffic (for example the proposed diversion across Junction 66 (Eighton Lodge). c) What is the estimated additional average walking time for each diversion? d) Are any affected PRoW likely to be used by school children and, if so, what are the implications for	Temporary stopping up of Public Right of Way BI/16/1 leading to North Dene Footbridge (including crossing facilities over the A1 Northbound and Southbound carriageway).	To be substituted temporarily whilst the Footbridge is being demolished by a diversion route to the Bridleway Lamesley 72. The replacement Footbridge will be provided in the same location as the existing	Buildability contractor undertook study and suggested that if one of the PRoW is closed then the other can remain open. The duration of works was approx. 4-6 months (refer to the construction programme) for both structures. A path between the two is proposed as a diversion route and a safe access will be provided.		



Ref No: 1.8	Question to:	Question: Economic and social effects (including Population and Human Health)	Response:		
		journeys to and from school? e) Are additional safety measures required to be put in place for the ProW diversion across Junction 66?	Temporary stopping up of Public Right of Way LA/72a (referred to as Longbank Bridleway). Temporary stopping up of PRoW GA/7/1 to provide construction works access with a controlled crossing point. Temporary stopping up of PRoW GA/6/1 to provide construction	North Dene Footbridge structure. To be substituted temporarily by a diversion route that runs towards the B1296 Long Bank, across Junction 66 – Eighton Lodge and back down the other side of the A1 via an unnamed path. To include a controlled crossing point at the proposed works access road. To include a controlled crossing point at the proposed works access	The stopping up will be for the construction of the controlled crossing which will be limited to days. The controlled crossing to be in operation for the duration of the demolition of existing Allerdene Bridge which is approx. 5 months. The stopping up will be for the construction of the access track which will be limited to a few
			Temporary stopping of unnamed footpath that runs parallel to A167 Durham Road from Angel of the North to junction 66 (Eighton Lodge). Temporary stopping up of unnamed footpath that runs adjacent to the southbound off slip at junction 65 (Birtley).	To be substituted temporarily by a diversion route that runs to the north of the existing footpath, around and back to the southern point of the existing footpath. This route remains in parallel to the A1. To be substituted temporarily by a diversion route that runs to the north of the existing footpath.	days. The duration of the demolition of existing Allerdene Bridge which is approx. 5 months. This is for the construct of southbound carriageway earthworks at junction 66 (Eighton Lodge) – the works are proposed to take 4 months. Refer to the construction programme. The diversion is an existing footway. This is for the widening works at junction67 (Coal House) off slip – the proposed works to take 2 months. Refer to the construction programme. The new path will be constructed as diversion route.



Ref No: 1.8	Question to:	Question: Economic and social effects (including Population and Human Health)	Response:				
			PRoW diversions and reduce and i	sion routes will be confirmed in the con	required such as seen routes then the Cootways have been is expected to be linguities and alternative roximity to the original renience caused. Sp. W are given below. Response (a)	detailed design stage on struction management paration between Contractor to implement used as diversion route at northwest of North Dene Footbridge (Ref:6/1 -6/4 is 10 minutes	ent outes. vision of utes and
			Temporary stopping up of Public Right of Way LA/72a (referred to as Longbank Bridleway).	be provided in the same location as the existing North Dene Footbridge structure. To be substituted temporarily by a diversion route that runs towards the B1296 Long Bank, across Junction 66 – Eighton Lodge and back down the other side of the A1 via an	approx. 4-6 months (refer to the construction programme) for both structures. A path between the two is proposed as a	Estimated additional average walking time at diversion route from LA/72a/16 to LA/72a/15 to is 15 minutes and from LA/72a/16 to LA/72a/14 is 15 minutes	



Ref No: 1.8	Question to:	Question: Economic and social effects (including Population and Human Health)	Response:			
				unnamed path.		
			Temporary stopping up of PRoW GA/7/1 to provide construction works access with a controlled crossing point.	To include a controlled crossing point at the proposed works access road.	The stopping up will be for the construction of the controlled crossing which will be limited to days. The controlled crossing to be in operation for the duration of the demolition of existing Allerdene Bridge which is approx. 5 months.	Temporary Diversion for GA/7/1 not shown on the plan (See Sheet 3 of 7)
			Temporary stopping up of PRoW GA/6/1 to provide construction works access.	To include a controlled crossing point at the proposed works access road.	The stopping up will be for the construction of the access track which will be limited to days. The duration of the demolition of existing Allerdene Bridge which is approx. 5 months.	Temporary Diversion for GA/6/1 not shown on the plan (See Sheet 3 of 7)
			Temporary stopping of unnamed footpath that runs parallel to A167 Durham Road from Angel of the North to junction 66 (Eighton Lodge).	To be substituted temporarily by a diversion route that runs to the north of the existing footpath, around and back to the southern point of the existing footpath. This route remains in parallel to the A1.	This is for the construct of southbound carriageway earthworks at J66 Eighton Lodge – the works are proposed to take 4 months. Refer to the construction programme. The diversion is an existing footway.	The diversion would take approximately 3.5 minutes.



Ref No: 1.8	Question to:	Question: Economic and social effects (including Population and Human Health)	Response:		
			stopping up of unnamed footpath that runs adjacent to the southbound off slip at junction 65 (Birtley). temporarily by a diversion route that runs to the north of the existing footpath slip at junction 65 (Birtley). widening works at J67 off slip – the proposed works to take 2 months. Refer to the construction programme. The new path will be constructed as diversion route.		
			d) There are no PRoW that are regularly used by school children.e) Refer to response for part (a) of this question.		
Q1.8.6	Applicant	Table 12-18 [APP-033] provides usage levels of the Northside Overbridge. For clarification, is the ExA correct in assuming that the 5 th column should be PM Peak not 'AM Peak'?	Yes, it is correct – the fifth column in table 12-18 [APP-033] should be labelled "PM-Peak".		
Q1.8.7	Applicant	Sheet 6 of the Streets Rights of Way and Access Plan [APP-008] shows the public footpath arrangements in connection with the temporary closure of the North Dene Footbridge. This shows the creation of a temporary diversion route north of the A1 but does not show the full extent of the diversion route, including to the south of the A1. a) Please provide a drawing showing the full proposed temporary diversion route in connection with this closure including the use of any existing footpaths. b) Does the temporary diversion route shown to the north of the A1 utilise an existing footpath for its entire length?	a) The plan requested is attached to these responses to written questions at annexure 1.8 B and bears reference ExAQ1.7.5. As shown on the plan in Appendix 1.8 B, the diversion uses existing footpaths between points 1/3 and 1/4. The diversion uses existing bridleway between points 1/2 and 1/3. Between points 1/1 and 1/2 and 1/4 and 1/5 a temporary footpath with be constructed for use when North Dene footbridge is closed. The temporary path between 1/1 and 1/2 will also provide an alternative diversion when Longbank Bridleway is closed.		
Q1.8.8	Applicant	The proposed diversion for Longbank Bridleway appears to cross the proposed construction compound adjacent to Junction 66. The details provided in the outline CEMP [APP-174] (Figure 1 of Appendix A) do not show how provision has been made for the footpath to cross this compound. a) Is it the intention for the Longbank Bridleway diversion to cross the construction compound? If so, what provisions would need to be made to ensure the safety of footpath users? b) If the existing footpath across the proposed	The intention is for Longbank Bridleway to be diverted around the compound by means of a designated route which will safely guide users around the compound to B1296 Long Bank. As set out in the CEMP (Ref PH7) [APP-174] the design of any routes for walkers, cyclists and horse riders (WCH) will incorporate good practice with regards to safety, including lighting. The Streets, Rights of Way and Access Plans [APP-008] has been updated to show the correct diversion route for Longbank Bridleway and the diversion route for the existing footpath across the compound which will also require closure during construction.		



Ref No: 1.8	Question to:	Question: Economic and social effects (including Population and Human Health)	Response:
		construction compound would need to be closed, please provide details of any necessary diversion route.	
Q1.8.9	Applicant	Plot Refs 3/4p, 3/4q and 3/4r [AS-002] comprise land within Longacre Wood Local Wildlife Site (LWS). a) What implications would arise from any works, including construction works, proposed upon these plots on public access to and enjoyment of Longacre Wood LWS b) What specific measures would be required to safeguard public access to and enjoyment of Longacre Wood LWS during construction works?	 a) Longacre Wood falls directly within areas of both temporary and permanent land take for the Scheme's construction and operation. The temporary land take during construction is required to maintain a drainage ditch, while permanent land take is required from Longacre Woods in order to accommodate an embankment. Currently, no closure of the pedestrian footpath, or access restrictions, are anticipated during the construction of the Scheme. A safe system of working will be implemented to manage the pedestrian footpath, and all works would be securely fenced off from the public with a heras type fencing system. Should it prove too difficult to access the headwall extension from the A1, as planned during construction, the main contractor would need to consider accessing the works via the pedestrian footpath. If this access route is required, the main contractor would either temporarily close the pedestrian footpath for the duration of the head wall extension works (3 weeks per head wall), or would seek to close it for a few hours whilst the plant was moved into the works area and then access / service the works from the verge of the A1. The works area around the headwall would be securely fenced off from the public with a heras type fencing system. During the construction phase there is the potential for impacts on public enjoyment of Longacre Woods, due to the loss of amenity resulting from construction noise and the removal of vegetation as a result of the construction of the embankment. Measures to mitigate construction noise impacts and impacts on vegetation are detailed in the Outline CEMP [APP-174]. The proposed alignment of the road, and associated embankment slope has been designed to minimise the acquisition of land in Longacre Wood. The area affected permanently during operation (due to earthworks) is adjacent to the Smithy Lane abutment / A1 verge which is not currently accessible to the public. Once operational, the proposed works are not expected to change



Ref No: 1.8	Question to:	Question: Economic and social effects (including Population and Human Health)	Response:
			between the public and construction activity will be managed appropriately. Any works area would be securely fenced off from the public. While access to construction activities from Longacre Wood is not planned, should it be required the main contractor would either temporarily close the pedestrian footpath for the duration of the head wall extension works (3 weeks per head wall), or close the pedestrian footpath for a few hours whilst the plant was moved into the works area, then continue access works from the verge of the A1.
			During construction, there will be a temporary loss of amenity due to construction noise which will be mitigated through the adoptions of measures set out in Chapter 11 Noise and Vibration (para 11.9.5) [APP-032] and the Outline CEMP (Ref N5) [APP-174].
			During construction, all retained trees affected by construction activities will be protected as set out in the Outline CEMP (Ref B20) [APP-174]. Any trees at Longacre Wood which are felled or die as a result of construction will be replaced (Outline CEMP, Ref B21) [APP-174].
			To further mitigate the loss of amenity, the landscape design will create woodland corridors and treelines to link existing woodland at Robin's Wood to the River Team and enhance the wildlife corridors between Longacre Wood LWS and the existing wildlife corridor to the west.
Q1.8.10	Tyne and Wear Joint Local Access Forum	The Tyne and Wear Joint Local Access Forum has made a representation [RR-009] concerning the need to maintain/improve footpaths and bridleways adjacent to the development. Please provide further submissions on the application proposals in this respect, including the proposed temporary diversion routes [APP-008], the details contained within Chapter 12 (Population and Human Health) of the ES [APP-	The pedestrian, cycle and equestrian routes will be maintained adjacent to the Scheme. However, there are a couple of areas where the current facilities are substandard, such as some of the crossing points at Coal House interchange (junction 67), where dropped kerbs and tactile paving will be installed as necessary to bring them in line with modern standards.
		033] and Appendix D of the Transport Assessment Report (TAR)[APP-173].	
Q1.8.11	Applicant	Representations have been submitted [RR-010 and RR-011] regarding the potential effects on Dunkirk Farm, Northside. a) Please set out, with cross references to the relevant application documentation as appropriate, the measures that would be secured and implemented through the dDCO to safeguard farming operations at Dunkirk Farm, including measures for the restoration of land and continued access to fields.	a) Mitigation measures which would be implemented to safeguard farming operations such as Dunkirk Farm are embedded within the design of the Scheme, such as orientating the road to minimise severance of land parcels. With regard to restoration of land, in line with the mitigation measures, paragraph 9.9.4 to paragraph 9.9.6 in Chapter 9 Geology and Soils of the ES [APP-030], suitable agricultural soil protection measures would be implemented during the construction phase of the works to preserve soil and retain its function as a growing medium. These will be set out in a soil handling strategy which will include measures such as carefully stripping topsoil



Ref No: 1.8	Question to:	Question: Economic and social effects (including Population and Human Health)	Response:
		b) What would be the overall effect of the Proposed Development upon farming operations at i) Dunkirk Farm and ii) Upon any other agricultural/horticultural holdings?	ahead of any works in the area and storing the soil in well aerated mounds to keep the microorganisms active. This is set out in [GS1] and [GS2] of the Outline CEMP [APP-174] under Requirement 4 of the dDCO [APP-013].
		in open any other agricultural/northealtar northings:	b) i) <u>Dunkirk Farm</u> Based on the Lands Plan [APP-006], it is anticipated that the impacts of the Scheme on Dunkirk Farm will be limited to the periphery of the farmland. The amount of the required land take, both temporary (1.4489 ha) and permanent (655 m ²⁾ , from the existing land holding is limited.
			Representations from Galbraith on behalf of St Mary Magdalene and Holy Jesus Trustee Ltd [RR-010] state that Dunkirk Farm is only just large enough to be a viable holding, and any loss of land would have a higher than average effect on the farm's value. The representation by Galbraith on behalf of David Hankey [RR-011] states that due to the size of Dunkirk Farm, a very precise and intensive form of management is required to make the holding economically viable.
			Based on the information provided within RR-010 and RR-011 it might be considered that this land take, whilst limited in scale, would have adverse impacts on the viability of the farm during both construction and operation due to the intensive nature of the farming practices that are undertaken. Whilst access to the farm is not impeded, the southern part of the farm would not be able to be used.
			Based on the land take for the Scheme and the details from the RR-010 and RR-011, using the guidance in DMRB Volume 11, Section 3, Part 6, LA 112 (Table 3.11) the sensitivity of the agricultural land holding of Dunkirk Farm would be high. This is based on the understanding that the farm is dependent on the spatial relationship of land to key agricultural infrastructure.
			The magnitude of impact on Dunkirk Farm is considered to be moderate. This has been judged using DMRB Volume 11, Section 3, Part 6, LA 112 (Table 3.12) and the information provided in RR12 and RR18. From this it is understood that the Scheme will introduce partial loss of key elements, including acquisition of land compromising viability of the agricultural holding.
			Considering the above, the potential effects on Dunkirk Farm are considered to be moderate to large adverse (significant).
			It should be noted, that this assessment is based on the information provided in the representations from Galbraith on behalf of St Mary Magdalene and Holy Jesus Trustee Ltd [RR-010] and Galbraith on behalf of David Hankey [RR-011], and this information has not been verified. As such the Applicant will review this initial assessment, following an information gathering exercise and provide an expanded response at a future Deadline.



Ref No: 1.8	Question to:	Question: Economic and social effects (including Population and Human Health)	Response:
			b) ii. Guidance at the time of the assessment (DMRB Volume 11, Section 3, Part 6) which was reported in the Environmental Scoping Report [APP-103] enabled it to be determined that as the agricultural land take was unlikely to exceed 20ha of Best and Most Versatile (BMV) land, a significant effect was not anticipated. At this level of impact, the Applicant might simply have sought to scope out the topic from assessment altogether. Nevertheless, a straightforward assessment was undertaken based upon soil types, consisting of a desk top exercise supported by site survey information (Agricultural Land Classification Survey [APP-137]). The socio-economic effects of the Scheme on the agricultural land holdings was not included in the scope, following relevant guidance at the time.
			New guidance for Population and human health (DMRB Volume 11, Section 3, Part 6, LA 112) includes the sub-topic of "Agricultural Land Holdings" which looks at how a Scheme will impact the viability of a farm, rather than just the soil quality. At this stage, the Applicant remains of the view that the amount of BMV affected by the Scheme is very small, and it would still be possible to scope the topic out of assessment. Furthermore, whilst the point has been raised by the owners of Dunkirk Farm, no other agricultural landowner has raised the point, so there is no evidence before the examination to suggest that there will be a significant adverse effect on a farm or its viability. Nevertheless, the Applicant will consider this point further and provide an expanded response at a future Deadline.



Table 1.10 - Applicant's Responses to the ExA's First Written Questions - Transportation and Traffic

Ref No: 1.9	Question to:	Question: Transportation and Traffic	Response:
1.9.1.	Gateshead Council, Sunderland City Council and Newcastle City Council	The application is accompanied by a Transport Assessment Report (TAR) [APP-173]. Do the Council's agree with the content and findings of the TAR? Provide reasons for any disagreement with any aspect of it.	This question does not require a response from Highways England.
1.9.2.	Gateshead Council, Sunderland City Council and Newcastle City Council	Paragraph 1.1.1 of the Construction Traffic Assessment [APP-108] states that the routes used to access the construction site and the additional flows generated during construction are scoped out of further consideration for further assessment. Do the local authorities agree with the conclusions of this document?	This question does not require a response from Highways England
1.9.3.	Gateshead Council, Sunderland City Council and Newcastle City Council	The outline CEMP [APP-174] includes an outline CTMP (Appendix B). Details of construction phase traffic diversions have been provided in Appendix 11.12 of the ES [APP-156]. Submissions from the Councils are requested with regard to the adequacy of content of the outline CTMP with particular regard to managing and mitigating the effects of construction traffic within the respective Council areas.	This question does not require a response from Highways England.
1.9.4.	Applicant	Figure 2.1 of the TAR [APP-173] shows the study area for the scheme. Please explain the criteria for the extent of the study area including how it relates to surrounding roads?	In terms of the study area for the Scheme, the traffic modelling that has been used to appraise the scheme uses a traffic model that covers the north of England and as such the study area is wider than is shown in Figure 2.1 of the TAR. The use of a large model has been based on an assessment of the Affected Road Network (ARN) using guidance from DMRB Volume 11, Section 3, Part 1, Chapter 3, Para 3.12. and quoted below: "Affected roads are those that meet any of the following criteria: road alignment will change by 5 m or more; or daily traffic flows will change by 1,000 AADT (Annual Average Daily Traffic) or more; or Heavy Duty Vehicle (HDV) flows will change by 200 AADT or more; or daily average speed will change by 10 km/hr or more; or peak hour speed will change by 20 km/hr or more."



Ref No: 1.9	Question to:	Question: Transportation and Traffic	Response:
1.9.5.	Applicant and Gateshead Council	The representation from Gateshead Council [AS-007] draws attention to the what the Council considers to be the poor nature of facilities for pedestrians and cyclists at the Coal House roundabout (Junction 67). a) What scope and justification is there for improvements to access and facilities for pedestrians and cyclists in this location through the Proposed Development? b) How could such improvements be secured through the dDCO?	a) Highways England undertook a review of provision for walkers, cyclists and horse riders (WCH) as part of the design of the Scheme. The impact of the proposed Scheme on WCHs has been considered in the form of a Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) which forms part of the Transport Assessment Report (Appendix B) [APP-173]. The scope for improvements to access and facilities for pedestrians and cyclists at the Coal House roundabout (Junction 67) is set out in Table 16 of the WCHAR (see APP- 173). Table 22 (Opportunities at the Coalhouse Interchange) assesses the justification for these improvements as part of the Scheme. Copies of Tables 16 and 22 are attached for ease of reference.
			There are 6 issues identified for walking, cycling and horse-riding at Coalhouse Interchange WCHAR, which are assessed in Tables 16 and 22.
			As set out in Table 22, Issue 2 (pedestrian infrastructure at crossing points) and Issue 6 (inconsistent pedestrian signage) affect the slip roads of the A1. They are therefore considered to be associated with infrastructure for which Highways England has a responsibility for maintaining. It is therefore appropriate to secure these improvements as part of the Scheme. These measures are shown on the general arrangement drawings as described below in response to item (b).
			The remaining issues (Issue 1, and Issues 3-5) are associated with that part of Coal House roundabout which is part of the local highway network administered by Gateshead Council. To the extent that there are pre-existing issues associated with the use of the Roundabout by WCH users, these fall to the Council to address as opposed to Highways England. It is therefore not proposed to address these issues as part of the Scheme. They were to be part of another Scheme being considered but which is now not being progressed.
			A) Identified Issue 2 will be delivered through DCO application as it is within the DCO redline boundary and is shown on Sheet 2 of the General Arrangement Drawings [APP-010]. The provision made to address this is under Schedule 1 v) of the dDCO [APP-013] to develop this further.
			Identified Issue 6 (As in Table 16) will be delivered through DCO application as part of Work numbers 3a-d as shown on the Works Plans [APP-007] and described in the draft DCO [APP-013]. The provision made is under Schedule 1 v) of the dDCO [APP-013] to develop this further.
1.9.6.	Applicant	A representation has been received [RR-021] expressing	As explained above, identified issues 1,3,4 and 5 are not secured through the DCO as they are a pre-existing issue of the local highway network which is the responsibility of the local highway authority. The Scheme design is intended to improve the flow of traffic on the A1 and therefore



Ref No: 1.9	Question to:	Question: Transportation and Traffic	Response:
		concern at the potential traffic impacts of the proposal upon the access to the A1 from the A1231 from Washington/Sunderland. What future impacts would the scheme be likely to have on traffic and highway conditions on the A1231 including the access to the A1 and are any specific measures proposed to alleviate potential problems?	reduce queuing back onto the local road network. As shown in Sheet 7 of the General Arrangement Plans (Ref APP-010), the scheme provides two lanes for the northbound entry slip road onto the A1 from the A1231 (Junction 65) where there is currently only a single lane. This will allow traffic to flow more freely from the lane exiting the roundabout (junction of B1288 and A1231) and the left slip from the north of the roundabout as they will each have a lane instead of needing to merge as per the current arrangement. The additional capacity at the merge with the A1 will also reduce the incidences of queuing which impact upon this junction, giving a beneficial outcome in terms of the performance of the relevant network.
1.9.7.	Applicant	Paragraph 1.1.1 of the Construction Traffic Assessment [APP-108] states that the routes used to access the construction site and the additional flows generated during construction are scoped out of consideration for further assessment. a) Please provide assessment details of the potential for cumulative construction traffic and highway impacts taking account of other schemes including, but not limited to, other major highway schemes. b) Are any additional management measures required to be included in the CTMP in order to alleviate and safeguard against any potential cumulative impacts?	a) Cumulative impacts have been assessed for developments that are planned in the study area for the years 2023 and 2038, and are detailed in the TAR [APP-173]. Cumulative impacts for known major developments that may be under construction at the same time as the Scheme are considered below. Before considering the potential impacts from other major developments, it is first necessary to consider the context of construction traffic generated by the Scheme. The Scheme is to be constructed over a 3-year period. Over the 3-year period, the level of construction traffic compared to existing traffic flows on the A1, is extremely low. The existing Annual Average daily Traffic (AADT) ranges from approx. 85,000 to 100,000 across the Scheme (Figure 3.7 of the TAR [APP-173]). The maximum construction related AADT is 217 on Link W01 and 209 on Link W09, which relates to construction worker and construction traffic. This represents approximately 0.2% of the existing levels of traffic and is therefore considered insignificant. It is assumed that the majority of construction traffic routes via the A1 and then uses the local road network to access the Scheme including the Junction 67 (Coal House) Compound, Junction 66 (Eighton Lodge) Compound, and Junction 66 (Eighton Lodge) Longbank Bridleway Extension. Access to the compounds uses only a short section of the local highway network. Considering the impacts of other schemes Non-Road schemes General growth of HGVs across the region, which includes construction related HGVs, are included within the TAR [APP-173]). These are derived from the Department for Transport's National Trip End Model (NTEM) and National Transport Model. However, looking specifically within the vicinity of the Scheme, a review of the Uncertainty Log (Appendix B of the TAR [APP-173]) shows that there are no major 'non-road' developments planned within 2km of the study area that would generate significant construction related traffic on this section of the A1 during the construction of the Scheme. Theref



Ref No: 1.9	Question to:	Question: Transportation and Traffic	Response:
			Other major highway schemes within the local area that have the potential to have a cumulative impact on the Scheme are the A1 Scotswood to North Brunton scheme (approx. 7 miles north on the A1), A19/A184 Testos Junction Improvement scheme (approx. 8 miles east on the A19) and A19 Downhill Lane Junction Improvement (approx. 8 miles east on the A19).
			A1 Scotswood to North Brunton
			For the Scotswood to North Brunton scheme, the impact that could be experienced and may impact on the Scheme would be: 1. Traffic queuing back from Scotswood to North Brunton; and 2. Construction traffic passing through the Scheme towards Scotswood to North Brunton.
			Addressing point 1 above, the A1 Scotswood to North Brunton scheme would have traffic management designed to cater for the existing flow of traffic, but at lower speeds (as was the case for the A1 Coal House to Metrocentre Improvement scheme in 2015). Traffic queuing southwards towards the Scheme would therefore be minimised, and very unlikely to stretch the seven mile distance south towards the Scheme.
			Addressing point 2 above, the construction traffic associated with the A1 Scotswood to North Brunton scheme is not known, however, it is likely to be similar to this Scheme Scheme, representing a very small proportion of overall AADT on the A1.
			The two programmes of construction work for this Scheme and Scotswood to North Brunton scheme do overlap in the years 2021-23, however, as presented above, the construction related trips are likely to represent a very low proportion of overall AADT across the A1.
			A19 A184 Testos Junction Improvement
			The construction of this scheme is underway and is set to complete in 2021. The impact that could be experienced, which may impact on the Scheme would be: 1. Traffic re-routing away from Testos to this Scheme; and 2. Construction traffic passing through the Scheme towards Testos.
			Addressing point 1 above, it is currently unknown whether there has been a transfer of journeys away from Testos following the commencement of the traffic management associated with the scheme. It is also unknown whether this transfer (if it is presenting itself) is being made on local roads in the Sunderland and Washington areas, or if trips are changing routes via the A1 between Birtley and Coal House. It should be noted that re-routing via the A1 would be a significant detour for most journeys.
			As no data is available, and given that any proposed traffic management of the



Ref No: 1.9	Question to:	Question: Transportation and Traffic	Response:
			Scheme would seek to effectively manage the volumes of traffic present to provide an efficient flow of traffic (which would include any already re-routed trips form Testos), then the embedded mitigation (traffic management for the Scheme) provides for any already re-routed traffic from the Testos Improvement scheme.
			Addressing point 2 above, it is unlikely that any construction vehicles related to Testos are routing via the Birtley to Coal House section of the A1 at present, although this cannot be confirmed as there is no data is available. On the basis of this assumption, there would be no significant cumulative construction traffic impacts between the Testos scheme and this Scheme.
			A19 Downhill Lane Junction Improvement
			The A19 Downhill Lane Junction Improvement scheme is programmed for Summer 2020 – early 2022. The impact that could be experienced and which may impact on the Scheme would be:
			 Traffic re-routing away from the A19 Downhill Lane Junction to this Scheme; and Construction traffic passing through the Scheme towards A19 Downhill Lane Junction.
			Addressing point 1 above, it is anticipated that any traffic re-routing would be similar to that experienced during the on-going works at Testos. Therefore, similarly, any proposed traffic management of the Scheme would seek to effectively manage the volumes of traffic present to provide an efficient flow of traffic (which would include any already re-routed trips form Testos), then the embedded mitigation (traffic management for the Scheme) provides for any already re-routed traffic from the Testos Improvement scheme.
			Addressing point 2 above, it is unlikely that any construction vehicles related to the scheme are routing via the Birtley to Coal House section of the A1 at present, although this cannot be confirmed as there is no data is available. On the basis of this assumption, there would be no significant cumulative construction traffic impacts between the A19 Downhill Lane Junction scheme and this Scheme. b) It is proposed to add a commitment to the Construction Traffic Management Plan (CTMP) at Appendix B of the Outline CEMP, [APP-174], to setup a working group to discuss and manage interaction between each of the three Applicant promoted schemes and any other major road or non-road schemes that come forward. It is suggested the working group includes, but not be limited to the following:
			 Highways England North East Joint Transport Committee Representative Gateshead Council Sunderland City Council



Ref No: 1.9	Question to:	Question: Transportation and Traffic	Response:
1.9.8.	Applicant	Work No. 21 (temporary construction access onto	 Emergency Services Main Contractor(s) Local Residents Groups If through forward planning potential cumulative impacts are identified the working group would seek to minimise impacts through implementing agreed measures such as re-programming the most disruptive works to avoid overlap between schemes or coinciding with other major events e.g. Great North Run. The group would need to commit to partnership working and act on the findings to ensure minimal disruption to residents. a) The CTMP at Appendix B of the Outline CEMP, [APP-174], considered the
		Woodford to carry out the demolition of Allerdene Bridge) [AS-011] would involve the access onto and use of a minor residential road. a) Construction traffic movements into and out of the construction access onto Woodford do not appear to be included in Construction Traffic Assessment [APP-108]. Please clarify this? Are construction traffic movements for the working compound to the north west of Longbank Bridleway Underpass included in the Construction Traffic Assessment? b) What is the expected flow and frequency of HDVs and other construction/traffic movements using Woodford and what would be the overall duration of the use of this access? Would there be any evening/night time vehicle movements? c) What measures would be put in place in this location in order to safeguard highway and pedestrian safety and how would these be secured through the dDCO?	construction traffic movements associated with the Scheme including those to the Junction 67 (Coal House) Compound, Junction 66 (Eighton Lodge) Compound, and Junction 66 (Eighton Lodge) Longbank Bridleway Extension. The assessment considered the vehicle movements associated with the whole Scheme and assigned the movements to the link the movement enters the Scheme extents. The traffic movements to Woodford were therefore included with general construction traffic. Specific construction traffic movements to Woodford is discussed further in the next section. b) It is anticipated that the following activities would be undertaken via Woodford working compound: • Site clearance of trees along the route of the temporary access track and area identified for the crane platform; • Construction of a temporary access road from Woodford to the crane platform – This would involve the delivery of imported aggregate to form the access track, this would be delivered in 8 wheeled tipper wagons. The construction of the access track would require a 21tonne excavator, D6 Dozer, and Roller; • Delivery of a 1200 tonne crane, this will be delivered in kit form on a number of articulated lorries carrying abnormal loads and will be assembled with a 100 – 250 tonne mobile crane; • It is expected that the demolished bridge sections would be lifted out and placed upon Self Propelled Modular Transporters (SPMT) sat upon the disused section of the A1 and driven to an area with the closed off A1 form unloading and demolishing. This would remove the need to introduce any further traffic movements onto Woodford; • Once the existing Allerdene bridge has been demolished, the crane would be disassembled and removed in the reverse order of assembly; • The access track would then be removed and reinstated will all material being removed via Woodford;



Ref No: 1.9	Question to:	Question: Transportation and Traffic	Response:
			It is anticipated that the access on Woodford would be used for a duration of 6 months towards the end of the overall construction programme. The expected flow and frequency of HDV movements is estimated 21 HDVs per day (42 2-way trips) on average during site mobilisation, clearance and enabling works (month 1). A similar number of HDVs would also be generated during reinstatement works at the end of the 6 month period.
			Outside of the works associated with site clearance, construction of the temporary access track, assembly/disassembly of the crane, site reinstatement it is anticipated daily vehicle movements will reduce to in the order of 6 HDVs per day (12 2-way trips) on average during the works to demolish Allerdene Bridge with the majority of HDV movements taking place on the old alignment of the A1 as described in the activities above. In addition, it is estimated that there will be in the order or 9 LGV movements (18 2-way trips) on average associated with mini bus or pick up trucks transporting workers and delivering small tools to the working compound.
			It is expected that works in this location will mainly take place during daylight hours. However, because Allerdene Bridge crosses the East Coast Main Line, demolition works will need to take place during the night time when the railway can be closed.
			c) The General Arrangement Plan [APP-010] contains the preliminary design of the temporary access track on drawing TR010031/APP/2.6 (D). The access road will be in place for the duration of the use of the Allerdene working compound which is anticipated to be for a period of 4-6 months towards the end of the construction programme.
			The design of the access track for the demolition of the existing Allerdene Bridge has considered a controlled crossing facility for pedestrians and cyclists as shown on drawing TR010031/APP/2.4 (D). The arrangements proposed will enable the existing PRoW route to be maintained with the controlled crossing avoiding the need for any alternative diversion routes. The access track will be fenced and the crossing will be manned when plant is crossing the footpath to ensure the safety of pedestrians.
			Requirement 4(2)(d) of the dDCO [APP-013] requires that the CEMP include a construction traffic management plan. The traffic management plan would address construction traffic movements associated with the Scheme and to manage highways and pedestrian safety (see Appendix B of the Outline CEMP [APP-174]).
			The CEMP must be approved by the Secretary of State in consultation with the relevant planning authority. Requirement 4(3) requires that the authorised development is carried out in accordance with the approved CEMP.
1.9.9.	Applicant	Table 6-1 of the TAR [APP-173] provides details of walking, cycling and horse-riding Preliminary Design Stage	Please refer to table in Appendix 1.9 C which shows how each of the measures will be secured.



Ref No: 1.9	Question to:	Question: Transportation and Traffic	Response:
		Improvements. For each of these, please confirm how they would be	
1.9.10.	Applicant and Gateshead Council	The representation from Gateshead Council [AS-007] draws attention to the need to address what it considers to be the poor nature of facilities for pedestrians and cyclists at Coal House roundabout. The parties are requested to liaise and address this issue within their Statement of Common Ground to be submitted at Deadline 2. The Council should provide details of any measures it considers to be necessary and justified through the proposed scheme.	As stated previously in section 1.9.5, Highways England undertook a review of provision for walkers, cyclists and horse riders (WCH) as part of the design of the Scheme. The impact of the proposed Scheme on WCHs has been considered in the form of a Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) which forms part of the Transport Assessment Report [Appendix B, APP-173]. The scope for improvements to access and facilities for pedestrians and cyclists at the Coal House roundabout (Junction 67) is set out in Table 16 of the WCHAR [APP-173]. Table 22 (Opportunities at the Coalhouse Interchange) assesses the justification for these improvements as part of the Scheme. Copies of Tables 16 and 22 are attached for ease of reference. There are six issues identified for WCHs at Coal House Interchange in the WCHAR, which are assessed in Tables 16 and 22. As set out in Table 22, Issue 2 (pedestrian infrastructure at crossing points) and Issue 6 (inconsistent pedestrian signage) affect the slip roads of the A1, they are considered to be associated with infrastructure for which Highways England has a responsibility for maintaining. It is therefore appropriate to secure these improvements as part of the Scheme. These measures are shown on the general arrangement drawings as described below in response to item (b). The remaining issues (Issue 1, Issues 3-5) are associated with that part of Coal House roundabout which is part of the local highway network administered by Gateshead Council. To the extent that there are pre-existing issues associated with the use of the Roundabout by WCHs, these fall to the Council to address as opposed to Highways England. It is therefore not proposed to address these issues as part of the Scheme.
1.9.11.	Gateshead Council	The representation from Gateshead Council [AS-007] draws attention to the need for a complimentary programme of measures to promote sustainable transport. Please can the Council provide further details of i) the form of measures it considers would be	Within the vicinity of the Scheme is: one cycling route which provides a major link to Newcastle City Centre and three sections which can accommodate pedestrian and cyclist movements, namely the A1 Birtley to Coal House, Junction 66 and 67 and Smithy Lane. However, public transport is very limited, there are no rail options available and bus routes only use the junctions of the A1.
		appropriate and ii) the justification for those in connection with the proposed scheme?	It is likely that WCHs would be directly impacted during the construction of the Scheme due to the requirement to temporarily close footpaths in the vicinity. Opportunities to provide potential improvements to the existing WCH infrastructure will be delivered as part of the Scheme.
1.9.12.	Applicant	Please provide further details of the proposed A1 Scotswood to North Brunton scheme (ID 12 of Table 15-8 of APP-036] including outline scheme details, the stage of scheme development, any consenting/approval details and the current anticipated construction and opening timetable.	The A1 Scotswood to North Brunton scheme proposes improvements between junction 74 and junction 79 of the A1. It aims to increase capacity, improve journey time reliability and improve safety on this stretch of the A1. Once complete the scheme will unlock economic growth and housing in the north east. All the widening proposed for this scheme is within the current highway boundary. There is no additional land



Ref No: 1.9	Question to:	Question: Transportation and Traffic	Response:
		Provide an assessment of impacts that may arise in the event that the construction of this scheme overlaps with the Proposed Development.	required and therefore Highways Act 1980 and the Planning Act 2008 do not apply to this scheme. The scheme will increase the current two lanes to: • three narrower lanes between junctions 74 and 78 and;
			three full width lanes from a point 840m north of Kingston Park between junctions 78 and 79.
			Costain Jacobs Partnership has been appointed as delivery partner and are currently undertaking detailed design. Start of works is forecast in March 2020 and it is expected to be open to traffic by spring 2023.
			In October 2017, a Delivery Plan update was released following programme level discussions regarding the number of projects scheduled for Start of Works (SoW) by March 2020 along the A1 and A19. A decision was made to re-programme the A1 Birtley to Coal House project to avoid construction clashes and resulted in a revised start of work commitment date of start of works by March 2021. The nature of the way the A1 Newcastle Gateshead Western Bypass functions is that little traffic travels long distances on it, so few drivers will drive through both the A1 Birtley to Coal House scheme and the A1 Scotswood to North Brunton scheme. Most journeys involve shot distances and the A1 is used as a way of accessing Gateshead, Newcastle and the surrounding areas. Due to the distance between the two schemes there is minimal physical interaction through queuing due the sizable section of approximately 7 miles separating the two schemes. Throughout construction of both schemes, at least 2 lanes of traffic will be open to traffic. Therefore, capacity will be maintained, albeit with traffic management. Lane closures or slip road closures would be on an evening on both schemes with diversions routes clearly signed, would be advertised locally and agreed by the relevant local authority. Due to the distance between the two schemes these diversion routes will not interact. Both schemes will work with the local authorities to encourage drivers to use these diversion routes. During construction, both schemes will work closely together to co-ordinate the works and ensure any closures planned on both schemes do not clash or mitigations measure are introduced to minimise any potential impact to the travelling public. Please see the answer to 1.9.7 in relation to cumulative impacts between the Proposed Development and The A1 Scotswood to North Brunton.



Table 1.11 - Applicant's Responses to the ExA's First Written Questions - Water Environment

Ref No: 1.10	Question to:	Question: Water Environment	Response:
1.10.1.	Applicant and Environment Agency	Paragraph 2.3.7 of the ES Flood Risk Assessment (FRA) [APP-163] acknowledges that the EA are currently revising the climate change allowances (as set out in the FRA) following the publication of new climate projections (UKCP18). The Applicant states that the Environment Agency in their document (<i>Using 'Flood risk assessments: climate change allowances' following publication of new climate projections in UKCP18</i>) (Ref 1.2) consider that the allowances detailed in Table 2-2 (for peak river flow) and Table 2-3 (for peak rail fall intensity) are still the best national representation of how climate change is likely to affect flood risk. Paragraph 2.3.8 states that this position and use of these climate change allowances has been agreed with the Environment Agency. Can the Applicant and the Environment Agency confirm that this remains to be the current position and provide any necessary update on this aspect of the assessment?	The use of the allowances outlined in Q 1.10.1 remains the Environment Agency's position with the fluvial and pluvial updates to the climate change allowances expected towards the end of the year (2020). Since the submission of Appendix 13.1Flood Risk Assessment [APP-163] (FRA) with the Application. The Environment Agency updated their guidance on 17th December 2019 (https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances), however, this does not impact the findings of the FRA for the reasons outlined below: The Environment Agency guidance • Updated the sea level rise allowances using UKCP18 projections. This is not applicable for the Scheme, as agreed with the Environment Agency (email from Caroline Maarouf dated 17/04/19); • Added guidance on how to: o a) calculate flood storage compensation, the Scheme has been designed in accordance with this guidance as detailed within the FRA; b) use peak rainfall allowances to help design drainage systems, the Scheme has been designed with the central estimates, as the widening nature of the works does not allow sufficient design flexibility to contain the additional volumes that would have been generated during a 1 in 100 year rainfall event with the upper end climate change allowances to be stored within the highway; o c) account for the impact of climate change on storm surge. This is not applicable for the Scheme, as agreed with the Environment Agency (email from Caroline Maarouf dated 17/04/19); od) assess and design access and escape routes for less vulnerable development. This is not applicable for the Scheme, as this aspect primarily applies to buildings where people could become isolated during a flood event. Whilst there are parts of the Scheme that may flood, these are limited to on/off slips where access could be controlled if required and managed by Highways England through speed reductions or closing slip lanes, as appropriate, during the operational phase of the Scheme; • Changed the guidance on how to apply peak river flow all
1.10.2.	Applicant and Environment Agency	Paragraph 2.5.13 of the ES FRA [APP-163] states that the EA have informed the Applicant that the published Flood Map for Planning has been superseded by the River Team model, the results of which should be used in its place. But that this new mapping has yet to be published.	a) The new mapping comprised in the River Team Flood Model has not yet been published to form the publicly available Flood Map for Planning. As detailed in Environment Agency's Written Representation dated 04/02/20, Reference no. NA/2019/114837/01-L01, the Environment Agency are still in the process of verifying the updated flood model. It is estimated that this modelling work will be completed



Ref No: 1.10	Question to:	Question: Water Environment	Response:
		 a) Has the new mapping now been published and, if not, when is it expected to be published? b) If it has already been published, what implications does it have for the FRA? 	within 3 months. However, this cannot be guaranteed. If the baseline flood model is deemed to be acceptable, then the Environment Agency's flood maps will be updated to reflect the updated modelling. They have stated that their flood maps are updated every 3 months. In this instance the best available information covering flood risk from the River Team is not from the published Flood Map for Planning but is from the Environment Agency's River Team model which will feed into the new map. This model has been used by the Applicant to prepare the FRA [APP-163] and also by the Environment Agency to review the FRA. Therefore, although this mapping has yet to be published, the FRA has been based on the underlying model for the updated mapping. It follows that publication of the updated mapping (whenever that occurs) will have no implications for the FRA which has followed best practice by using the best available information, and this is fully incorporated in the Scheme design. b) This is not applicable for the reasons stated above.