

A417 Missing Link
TR010056

8.27 Summary of Applicant's Oral
Submissions at Issue Specific
Hearing 4 (ISH4)

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Procedure) Regulations 2009

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

A417 Missing Link

Development Consent Order 202[x]

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Hearing 4 (ISH4)**

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1 Introduction

- 1.1.1 This note summarises the submissions made by National Highways ("the Applicant") at the Issue Specific Hearing regarding Environmental Matters held on 3 March 2022 ("the Hearing") in relation to the Applicant's application for development consent for the A417 Missing Link ("the Scheme").
- 1.1.2 Where the Examining Authority ("the ExA") requested further information from the Applicant on particular matters, or the Applicant undertook to provide further information during the Hearing, the Applicant's response is set out in this document. This document does not purport to summarise the oral submissions of parties other than the Applicant, and summaries of submissions made by other parties are only included where necessary in order to give context to the Applicant's submissions in response.
- 1.1.3 The structure of this document follows the order of items published by the ExA on 24 February 2022 ("the Agenda"). Numbered agenda items referred to are references to the numbered items in the Agenda. The Applicant's substantive oral submissions commenced at Item 3 of the Agenda, therefore this note does not cover Items 1 and 2 on the Agenda which were procedural and administrative in nature.

2 Appearances

- 2.1.1 Alex Minhinick of Burges Salmon LLP confirmed that he represents the Applicant and would introduce specialists in the areas to be discussed during the Hearing at the appropriate time.

3 Item 3 – transport

- 3.1.1 Andrew Bamforth, Transport lead at Arup, also appeared for National Highways during this agenda item for the Applicant.

Cowley Lane

- 3.1.2 Mr Bamforth explained that the drawing shown at Appendix A of Comments on responses received by Deadline 2 (Document Reference 8.21, REP3-013) shows the access arrangements for Cowley village. With the scheme in place, Cowley Lane would remain the main route between Cowley Village and the A417. The route from Cowley to the A417 would be along Cowley Lane (westbound) via Stockwell onto the de-trunked section of the A417, and then via the new Cowley junction.
- 3.1.3 In response to the ExA's questions on modelled eastbound movements along Cowley Lane, Mr Bamforth referred to Figure 7-1 in Document Reference 7.10 Transport Report (APP-426) and Tables B-1 to B-5 in Comments on responses received by Deadline 2 (Document 8.21, REP3-013).
- 3.1.4 Mr Bamforth confirmed that references to eastbound trips on Cowley Lane are trips travelling towards Cowley along Cowley Lane in the eastbound direction. The scheme would not prevent movement along Cowley Lane to and from Cowley.

- 3.1.5 It is correct to infer that the scheme traffic model forecasts in the Do-Something scenario that there would be a very low flow of vehicles travelling eastbound on Cowley Lane. This is the value indicated as 1 in Table B-4.
- 3.1.6 The reason for these low predicted flows relates to the comparative modelled journey times on differing route options to Cowley Village. Taking for example a trip in the eastbound direction between Cowley Village and a destination to the north, such as the A417 at Brockworth bypass, the journey times in the Do-Something scenario in 2041 for the AM peak are similar between the various route options: via Cowley Lane; or via the A435/A436. However, the modelled journey time is quicker via the A435/A436 route (11 minutes compared to 11 minutes 40 seconds). The model therefore assigns eastbound trips to Cowley via the A435/A436 route, rather than via Cowley Lane. In the westbound direction it is quicker via Cowley Lane and therefore the model assigns westbound trips from Cowley via Cowley Lane.
- 3.1.7 Trips accessing Cowley from destinations to the south of the village would continue to use the A435 through Elkstone; the scheme would not change the routeing of these trips.
- 3.1.8 In relation to trips classed as 'through trips', i.e trips that pass through Cowley, these would reduce with the scheme in place. In the Do-Minimum scenario, the traffic model forecasts that there would be some 'through trips' travelling through Cowley via Cowley Lane. These would be trips, for example, from between the A417 south of the scheme, or from Brimpsfield and Stroud, to Cheltenham. In the Do-Minimum scenario these trips would travel through Cowley to avoid congestion on the A417/Air Balloon roundabout.
- 3.1.9 In the Do-Something scenario the scheme traffic model forecasts that those 'through trips' from Brimpsfield and Stroud to Cheltenham would reassign back to the A417 using the A436 Link Road via Shab Hill and then Leckhampton Hill to reach Cheltenham. This is due to the reduced delay along the A417 that the scheme achieves. Similarly, those 'through trips' from the south would also reassign to the A417 and travel via Leckhampton Hill to Cheltenham.
- 3.1.10 In response to agenda item 3.2 on Cowley Lane, Mr Minhinick clarified that the reference to an increase in vehicles using Cowley Lane, as reported in paragraphs 2.2.12 and 2.2.13 of Comments on responses received by Deadline 2 (Document Reference 8.21, REP3-013), omits certain words that should have been included. It ought to have referred to the "increase" as being between the Do-Minimum and Do-Something scenarios in 2041. There is no predicted increase in traffic along Cowley Lane in the Do-Something 2041 scenario compared with the current observed baseline flow.
- 3.1.11 Mr Bamforth confirmed that the observed baseline shown in Table B-1 of Comments on Responses received by Deadline 2 (Document Reference 8.21, REP3-013) for Cowley Lane is 125. This is the figure that should be used as the comparator for the Do-Something 2041 scenario flow modelled at 118.
- 3.1.12 Across both Cowley Lane and Cowley Wood Lane the observed screenline baseline figure is 197 (125 + 72). This is compared to the modelled baseline flow of 206 across the Cowley village screenline. This is important as it demonstrates that the model represents traffic to and from Cowley in the base year accurately. Whilst there is a slight variance on each of the links, the overall screenline figure matches closely and meets the DfT Transport Analysis Guidance criteria (Unit

M3.1 Highway Assignment Modelling) (as shown in Table 8-1 in the ComMA – Document Reference 7.6, APP-422) for model link flow validation. Each of the individual links (Cowley Lane and Cowley Wood Lane) also meets the DfT Transport Analysis Guidance criteria for model link flow validation, which is also shown in Table 8-1 of the ComMA (Document Reference 7.6, APP-422).

- 3.1.13 With the closure of Cowley Wood Lane as part of the scheme, there would be reassignment of traffic from Cowley Wood Lane to Cowley Lane. This would be the cause of the increase in traffic on Cowley Lane from 18 in the 2041 Do-Minimum scenario to 118 in the 2041 Do-Something scenario. However, the total traffic travelling to and from Cowley in the 2041 Do-Minimum scenario should be considered as the combined traffic across both Cowley Lane and Cowley Wood Lane. This is a total of 322, being 18 plus 304, as set out in Table B-1 in Document Reference 8.21 (REP3-013). When compared with the baseline, therefore this is not a reduction. In the 2041 Do-Minimum scenario there is a forecasted increase in through trips via Cowley.
- 3.1.14 In the 2041 Do-Something scenario in 2041, the total traffic forecast through Cowley is 118, which is a reduction from the 2041 Do-Minimum scenario (322) due to the re-routing of 'through traffic' to the A417 as a result of quicker journey times.
- 3.1.15 As there is no predicted increase in traffic along Cowley Lane with the scheme in place, the Applicant confirms that no measures are required to accommodate an increase in traffic on Cowley Lane. No formal assessment or road safety audit has been undertaken on Cowley Lane for the same reason. However, Mr Bamforth referred the ExA to paragraph 2.67 of Comments on responses received by Deadline 3 (Document Reference 8.25, REP4-035), which confirmed that in the 2041 Do-Something scenario Cowley Lane would operate with a volume capacity ratio of approximately 5%. There is therefore no issue with capacity on Cowley Lane.
- 3.1.16 In response to comments made by Mr Knox, the ExA queried how the assessment of observed vehicle numbers was undertaken. Mr Bamforth explained that observed traffic data was based on an automatic traffic count undertaken in 2015, in line with the South West Regional Traffic Model.
- 3.1.17 Mr Minhinick reiterated that the Applicant has considered volume and capacity at Cowley Lane. The Applicant's consultant team (including Mr Bamforth) has visited the site many times. The Applicant has also undertaken extensive consultation with local residents, including Cowley village, as set out in the Consultation Report and related appendices (Document Reference 5.1 and 5.2, APP-027-029). Consultation with residents of Cowley Village was also specifically addressed within section 2.2 of the Response to Written Representations made at Deadline 1 (Document Reference 8.11, REP2-012).
- 3.1.18 Mr Minhinick noted that consultation responses from Cowley villagers have clearly been taken into account by the Applicant, as scheme design changes have been made as a result. For example, paragraphs 7.4.30 to 7.4.32 of the Consultation Report (APP-027) explain how amendments to the design of Cowley junction were made in response to concerns about 'rat running' and increased traffic through Cowley village. Another example is set out in paragraphs 10.4.23 to 10.4.26 of the Consultation Report (Document Reference 5.1, APP-027), which explain how the proposals for parking near the Air Balloon Way were amended as a result of engagement with Cowley & Birdlip Parish Council alongside local

residents. In addition to making changes to the scheme design, in response to feedback from residents of Cowley village National Highways also took into account feedback regarding the environmental assessment. As set out in paragraph 2.15.5 of the Responses to Relevant Representations (Document Reference 8.3, REP1-008), the noise assessment study area was extended beyond that required under the DMRB methodology to include Cowley village.

- 3.1.19 In relation to agenda item 3.5 directed at Richard Hamilton on behalf of the Cowley residents, Mr Bamforth noted that the Applicant has reviewed traffic data in relation to the bridges that cross the River Churn in proximity to Cowley village. In compliance with Hearing action ISH4-AP1, the Applicant has presented traffic data regarding usage of the 'historic bridge' northeast of Cowley Manor within its Comments on Responses received by Deadline 4 (Document Reference 8.26).
- 3.1.20 In relation the action ISH4-AP2, Mr Bamforth confirmed during the Hearing that traffic flows on the A436 were taken into account as part of the traffic model. A detailed response to the suggestion that traffic will continue to divert through Cowley when the A436 is congested is set out in Comments on Responses received by Deadline 4 (Document Reference 8.26).

Other matters

- 3.1.21 In response to agenda item 3.6, the Applicant confirmed that there would be a small increase in traffic at the Barnwood and Longlevens junctions on the A417 with the scheme in place. However, delays would not significantly increase over those forecast in the 2041 DM scenario. In compliance with ISH4-AP3, further detail is provided by the Applicant in Comments on Responses received by Deadline 4 (Document Reference 8.26) to support this conclusion.
- 3.1.22 In relation to agenda item 3.7, the Applicant's detailed response will be provided at Deadline 6 once Gloucestershire County Council has provided written comments at Deadline 5. As set out in the Applicant's Comments on responses received by Deadline 3 (Document Reference 8.25, REP4-035), the volume to capacity (V/C) ratio at Leckhampton Hill, and on Gloucester Road in Stratton, the B4070 south of Birdlip, and the road leading to Brimpsfield would be less than 85% in the 2041 Do-Something scenario. V/C is a measure used within traffic modelling to assess whether a road is able to carry a certain level of traffic without causing delays. In modelling terms, a V/C of more than 85% is the point at which a road or junction is said to be over capacity and flow would start to break down, causing an increase to journey times. Mr Minhinick noted within the Hearing that the Applicant's position is that likely significant effects have been assessed as part of the environmental impact assessment (EIA). The applicant does not consider that any mitigation of traffic impacts on the local road network is required.
- 3.1.23 Further to comments made by Mr Lavington on behalf of the Cowley & Birdlip Parish Council, the Applicant confirmed that there has been a meeting between GCC, the Parish Council and the Applicant to discuss speeding on the A417 and its accesses. The Applicant acknowledges that there is an existing perceived issue on the B4070 north of Birdlip in relation to an inadequate safety crossing that is not affected by the scheme. The Applicant has agreed to address these issues during detailed design, if possible. This is reflected in the updated Statement of Common Ground with the Joint Councils (Appendix A, Document Reference 7.3 Rev 3) submitted at Deadline 5. In relation to speed limits, Mr Minhinick referred the ExA to paragraph 8.1.11 of the Deadline 3 submission

Document Reference 8.19 Summary of Applicant's Oral Submissions at Issue Specific Hearing 2 (Document Reference 8.19, REP3-011). Mr Minhinick noted that the speed limits plans were also updated at Deadline 4 to address a minor discrepancy (Document Reference 2.7a Rev 2, REP1-010).

- 3.1.24 In relation to agenda item 3.9, Mr Minhinick confirmed that additional de-trunking arrangements with GCC will not be secured in the DCO. The draft DCO makes adequate provision for the de-trunking process within Article 14. Discussions between the Applicant and GCC around additional assurances to be provided separately are ongoing.
- 3.1.25 In response to comments made by Mr Knox on the design of the junction layouts and climate data used in the traffic modelling, the Applicant refers the ExA to: Section 3 of National Highways' Summary of Applicant's Oral Submissions at Issue Specific Hearing 2 (Document Reference 8.19, REP3-011) and Table 2-2 and the response to the written submission from Joanna Pearce in Comments on responses received at Deadline 3 (Document Reference 8.25, REP4-035) for National Highways response on these comments.

4 Item 4 – geology

- 4.1.1 Luke Casey, Ecology lead from Arup, Jessica Postance, EIA lead at Arup, and Jason Prosser, Solutions lead at Arup, also appeared for National Highways during this agenda item.

Waste and materials

- 4.1.2 In response to agenda item 4.1 and comments made by GCC, Mrs Postance confirmed that the materials assessment undertaken as part of the EIA was in line with DMRB LA104 and LA110. The assessment took account of mitigation measures before assigning residual significance. The mitigation proposed is set out in the Environmental Management Plan (EMP) (Document Reference 6.4 Rev 2, REP4-027/8) and EMP Annex E outline Materials Management Plan (Document Reference 6.4, APP-323). Mrs Postance confirmed that this is a matter of disagreement between the Applicant and GCC, and that the Applicant's position has been communicated to GCC in writing.
- 4.1.3 Mr Prosser explained that unforeseen conditions may be encountered on site during the detailed design stage. The contractor will therefore need to manage the waste materials fill and surplus balance at the detailed stage, as is standard practice on major schemes. It is not possible to identify specific measures, over and above what is included in the outline Materials Management Plan, at this stage.
- 4.1.4 Mr Minhinick added that one of the reasons why limits of deviation are incorporated on DCO schemes is to allow for minor adjustments to be made to the scheme. Minor changes can have considerable impacts on volumes of material produced or re-used. The limits of deviations enable the contractors to reach a cut and fill balance, and they are incentivised to do this because of the cost of disposing of surplus waste. This is important context.

Provision of calcareous grassland on Alexander & Angell Ltd land

- 4.1.5 In relation to agenda item 4.2, Mr Minhinick confirmed that the Applicant made submissions at Deadline 4 in relation to the design evolution of mitigation

measures at Alexander & Angell Ltd's property at section 2.4 of Document Reference 8.5 Comments on responses received by Deadline 3 (REP4-035).

- 4.1.6 Mr Casey further explained that Alexander & Angell Ltd's property is required for essential bat mitigation and the creation of calcareous grassland at this location is unique as part of the scheme. The majority of the land required for the scheme already provides a suitable limestone substrate for calcareous grassland. However, there is a change in geology in the west of the scheme. This is shown on ES Figure 9.3 Geological Map (Document Reference 6.3, APP-234 and APP-235). The geology in the western part is dominated by mudstones, which form different soil types. Deposition of limestone in this area would be required to facilitate conditions to create calcareous grassland.
- 4.1.7 The excavation and movement of limestone material is a fundamental aspect of the scheme design in order to achieve the required reduction on gradient compared to the existing A417 to the west of the Air Balloon Roundabout. The scheme requires cutting into the steep limestone escarpment, with this material being used to fill the section to the west of this point. The narrow road verges along this section are specified as calcareous grassland because they will be formed from material cut from the area that has limestone geology. The only other area of calcareous grassland proposed on land that is not within the limestone geology is within the Alexander & Angell Ltd land. At this location the mudstone bedrock geology is overlain with deposits of sand and gravel.
- 4.1.8 If there is sufficient surplus limestone material to enable calcareous grassland at this property, this opportunity would be taken to align with the scheme vision. If there is not sufficient surplus, the essential mitigation for bats required at this location would be delivered by way of neutral grassland instead. Neutral grassland would serve the same function as calcareous grassland in terms of mitigating effects on bats at this location. The Applicant recognises that there is an existing commitment to deliver all planting shown on the environmental masterplan (Document Reference 6.3 Environmental Statement Figure 7.11, APP-166-APP-192) as secured by commitment BD41 in the EMP ((Document Reference 6.4 Rev 2, REP4-027/8). Commitment BD41 does not expressly allow for alternative habitat types to be provided where they would serve the same mitigation or compensation function. The Applicant therefore proposes to update the EMP at Deadline 6 to clarify this.
- 4.1.9 The essential mitigation features required for bats are detailed in Appendix 8.8 to the Environment Statement in the Bat Advanced Survey Technical Report (Document Reference 6.4, APP-362) in Figure 4. This figure shows the core areas of the scheme used by the bats that were radio tracked. The relevant section of the scheme is heavily used by protected bat species. The scheme would reduce the amount of foraging and commuting habitat available, requiring the provision of replacement habitat. Plots 1/15 and 1/15a are immediately adjacent to these core corridors. These plots aren't currently suitable for bat foraging. The primary purpose of the grassland proposed is to deliver foraging habitat for bats.
- 4.1.10 Foraging habitat for bats needs to be insect rich. This requirement could be delivered by a range of habitat types. Grassland has been chosen by the Applicant because it is favoured by horseshoe bats. Because of the likely availability of limestone substrate, and the desire to have more calcareous grassland as part of the scheme, calcareous grassland was chosen for this

location. The grassland does not need to be calcareous to serve bats, and other more neutral grassland could perform the same function.

- 4.1.11 Mr Casey explained that the creation of calcareous grassland would depend on deposition of the correct substrate to a particular depth that will ensure free drainage, which is a characteristic of this habitat type. The exact depth of limestone substrate required would be determined by further ground investigation of the existing substrate (to confirm the underlying substrate, which is currently anticipated to be sand and gravel). The degree to which drainage is impeded would determine how much limestone would be needed. The Applicant is comfortable that the assessment of the underlying soil in this location is robust.
- 4.1.12 At the Hearing, Natural England noted that its preference would be for neutral grassland to be delivered at this location, in order to maintain the existing soil profile. In compliance with action ISH4-AP9, the Applicant's response to this proposal is set out in Comments on Responses received by Deadline 4 (Document Reference 8.26).

5 Any other matters

- 5.1.1 In relation to comments made by GCC in relation to detailed design, Mr Minhinick confirmed that the Applicant is preparing structure drawings to introduce an additional level of control within the DCO. These drawings will be submitted into the examination as soon as possible, and it is the Applicant's intention to secure these drawings by way of Requirement 11.
- 5.1.2 In relation to comments made by GCC in relation to lighting, the Applicant confirmed that its assessment of the likely effects of lighting the Ullenwood junction has been completed. The Applicant is not proposing to introduce ducting for possible future lighting, because of the results of the assessment. The Applicant will provide a summary of the assessment at Deadline 5, and will separately share a copy of the assessment with GCC for its information. The Applicant maintains that lighting is not required at this junction from a safety perspective, for the reasons explained in more detail in Comments on Responses received by Deadline 4 (Document Reference 8.26).