

# **A12 Chelmsford to A120 widening scheme**

**TR010060**

## **9.33 Applicant's Comments on Chelmsford City Council's Local Impact Report**

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**A12 Chelmsford to A120 widening scheme**  
Development Consent Order 202[ ]

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**Applicant's Comments on Chelmsford City Council's Local Impact  
Report**

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# 1 Introduction

- 1.1.1 The Development Consent Order (DCO) application for the A12 Chelmsford to A120 widening scheme (the proposed scheme) was submitted by National Highways to the Secretary of State for Transport via the Planning Inspectorate on 15 August 2022 and accepted for Examination on 12 September 2022.
- 1.1.2 The purpose of this document is to set out the Applicant's comments on the Local Impact Report (LIR) received by Chelmsford City Council (CCC) [REP2-106], one of the proposed scheme host authorities.
- 1.1.3 CCC's LIR [REP2-106] was published on the Planning Inspectorate website on 15 February 2023.
- 1.1.4 The Applicant has responded to each of the sections in the LIR in the table below.
- 1.1.5 The Applicant has responded to paragraphs numbers found in the CCC LIR [REP2-106], grouping paragraphs where relevant. The paragraph references can be found on the right-hand side of the table below.

## 2 Comments on Chelmsford City Council's Local Impact Report

<b>1. Introduction and Terms of Reference</b>	<b>1.1 - 1.12</b>
The Applicant acknowledges Chelmsford City Council's introduction to the Local Impact Report. The Applicant further acknowledges the comment regarding the Statement of Common Ground and looks forward to continued engagement.	
<b>2. Description of Site and Surroundings</b>	<b>2.1 - 2.15</b>
The Applicant notes Chelmsford City Council's comments.	
<b>3. Details of the Proposal</b>	<b>3.1 - 3.16</b>
The Applicant notes the Chelmsford City Council's comments.	
The Applicant will continue to liaise with the Chelmsford City Council, Network Rail and Countryside Zest to establish the proposed opening date for the station and associated works.	
The Applicant will also work with the County Council and other interested parties, including Network Rail, with the aim of having the proposed Paynes Lane bridge and the associated bridleway improvements from Main Road, Boreham in place and operational in a similar timescale if practicable, including consideration of the most appropriate co-ordination of each party's requirements to be carrying out construction works at this location. However, it is important to note that there is no scheme need for the Paynes Lane bridge to be open ahead of completion of the proposed scheme, or before the new railway station opens.	
<b>4. Planning History</b>	<b>4.1 - 4.3</b>

These applications have been submitted by the Applicant and are for advanced works relating to the proposed scheme. These applications and works were explained in section 2.6 of Chapter 2 The Proposed Scheme of the Environmental Statement [APP-069] and described in Table 2.8 of this chapter. The advanced works are mainly to establish ecological mitigation to enable the translocation of species to well established habitats, providing early ecological benefits for the proposed scheme and the local area. There is also a construction compound to support the ecological mitigation works. The Applicant awaits a decision on these applications.

## 5. Relevant Planning Policy

5.1 - 5.9

The proposed scheme's assessment against the National Policy Statement for National Networks is discussed in Appendix A: National Networks National Policy Statement Accordance Table of the Case for the Scheme [APP-250] and the assessment against the relevant Development Plan policies is discussed in Case for the Scheme - Appendix F: Local Planning Policy Accordance Tables [APP-252].

Where the Applicant considered the policy not to be relevant to the proposed scheme, for example Policies S7, S10, DM10 and DM27, the Applicant has not included these policies within the accordence tables. In this instance, the decision was based on these policies not being directly relevant to the proposed scheme.

There is significant policy support for the proposed scheme in the National Policy Statement National Networks (NPSNN), which forms the primary basis against which the proposed scheme must be assessed as established in the Planning Act 2008. The NPSNN places a strong emphasis on the need to improve and integrate the strategic highway network, and the proposed scheme would deliver against this national objective. There is also support in principle for the proposed scheme in local development plans.

Upon the arrival of the reviewed NPSNN in 2023, the Applicant will undertake a review of the emerging policies and dependant on the status of the document may provide a supplementary accordence table should that be necessary. The Applicant notes that the Draft NPSNN is likely not to be a material consideration due to its release late into the proposed scheme examination or decision

process and therefore considers the requirement for a supplementary accordance table unlikely.

## 6. Principle of Development and Likely Significant Effects

6.1 - 6.9

The Applicant acknowledges the key issues and areas of concern and also that the Chelmsford City Council supports the principle of the proposed scheme and its recognition that the proposed scheme is needed to improve traffic congestion along the A12 and around Junction 19 of the A12.

The Outline Construction Traffic Management Plan (OCTMP) [REP2-003] submitted with the DCO application sets out the proposals for temporary traffic management for the proposed scheme during the construction period. One of the key objectives of the OCTMP is to minimise disruption to all road users, local businesses and communities during the construction phase of the proposed scheme.

6.10 - 6.30

The Applicant has investigated extensively various options to reinstate the junction 20A southbound on slip following feedback from statutory consultation, including alternative options proposed by members of the community. As noted in the A12 Junction 20A Southbound Merge Assessment of Alternatives [Appendix B, REP1-002] and the more recently submitted Junction 20A Southbound Merge Alternative Roundabout Proposal Analysis [Appendix OFH2A, REP1-012], the decrease in traffic through Boreham village that may be experienced if junction 20A is reinstated is outweighed by the safety, environmental and cost implications of reinstatement.

With regard to traffic calming measures within Boreham Village the existing average speed observed in Boreham in non-peak hours is 32mph, and the 1-2mph speed reduction expected with the installation of 30mph speed limit signs will increase the travel time of vehicles using Main Road to join the A12 at junction 19. This will make this route less desirable to strategic traffic as accessing the A12 from junction 21 will be the quicker alternative. Similarly, the observed speed between Hatfield Peverel and Boreham is less

than the existing posted speed and the proposed 40mph speed limit signs along this section of road. Additional engineering measures are not deemed necessary to achieve a mean speed that is suitably consistent with the proposed posted speed limit.

**6.31 - 6.39**

Regarding points 6.37 and 6.39, the Applicant has considered the position held by the Council regarding the exceedance predicted by the Applicant at receptor R225 (Boreham). The assessment was undertaken conservatively, through the application of long-term trends which addresses uncertainty in vehicle emissions performance (see ES Chapter 6 Air Quality Appendix 6.3 Dispersion Modelling Process [APP-102]. Given the inherent uncertainty of air dispersion modelling discussed in ES Chapter 6 Air Quality Section 6.6 [APP-073] the Applicant acknowledges the request for monitoring and will continue to discuss this with Chelmsford City Council.

Regarding point 6.38, the Applicant acknowledges that particulate emissions will increase in Boreham. The change in concentrations predicted for PM10 is imperceptible in accordance with the judgment of significance contained within the DMRB LA105 Air Quality.

Regarding point 6.39, DMRB LA105 Air Quality section starting at 2.89 outlines, the methodology for determining significance is outlined. Section 2.96 specifically refers to where a project would trigger a significant air quality effect and the requirement for a Project Air Quality Action Plan (PAQAP) and subsequent mitigation measures, including the declaration of an AQMA.

The determination of whether a proposed scheme would have a significant effect on air quality is set out in Table 2.92N of the DMRB LA105 Air Quality and on the basis that t

Whilst an exceedance of the Air Quality Objective was predicted at human health receptor R225, the Environmental Statement Chapter 6 Air Quality [APP-073] did not determine any significant effects as a result of the proposed scheme. As a result, a PAQAP was not required and an AQMA would not need to be declared, nor is any mitigation required, such as the introduction of physical barriers referred to by the Chelmsford City Council.



6.40 - 6.49

The Applicant makes the following comments on matters raised by Chelmsford City Council.

6.47. As with Air Quality, the effect of the proposal is to turn Boreham village into an 'island', exposed to increased traffic levels from traffic along the A12 and Main Road. The proposal will expose Boreham village to higher levels of noise and vibration than it currently used to.

The Applicant acknowledges that traffic along the A12 and Main Road are forecast to increase with the proposed scheme. The impact from the increase in traffic along the A12 will be mitigated by the provision of enhanced road surfacing on the southbound carriageway. For these receptors alongside the A12 the predicted change in noise is negligible (<1 dB(A)), as it is for the majority of Boreham. However, along Main Road there are 28 dwellings where there would be minor increases in noise (between 1dB(A) and 2.9dB(A)) with the absolute noise level above the Significant Observed Adverse Effect Level (SOAEL). It is not possible to mitigate these significant adverse effects using standard noise mitigation measures for the following reasons.

- A low noise surface is only considered to be effective by DMRB LA 111 when average speeds are above 75km/h. The predicted speeds along Main Road are between 48 and 62km/h and so low noise surfacing would not be effective.
- To be effective, a noise barrier needs to be unbroken. In an urban situation such as Main Road, where access is required to the residential receptors via Main Road, it is not possible to have a barrier that is unbroken.
- The proposed scheme is already reducing the speed limit from 40mph to 30mph through Boreham.

The introduction of mitigation will have a positive impact upon living conditions and quality of life within Boreham. Chelmsford City Council does not agree with the proposal to only surface the southern section of the A12 between junction 19 and 21 with a noise reducing surface. The resurfacing of both surfaces would help to reduce noise levels along the roadside and mitigate against

negative effects to quality of life.

Reasons and justification for the proposed surfacing of only the southbound carriageway have been provided within the answer to ExQ1 15.0.4 within the Applicant's Response to the Examining Authority's First Round of Written Questions (ExQ1) [REP2-025].

6.48. It is premature to discount the environmental effects of introducing a noise and air quality barrier along the A12 roadside frontage. The management of the mitigation to achieve noise reduction, whilst not causing harmful environmental impacts is a sensitive balancing act. However, there is likely to be an appropriate scheme of mitigation that reduces noise impacts whilst complying with environmental legislation. Measures for this mitigation should be included within the proposal.

Reasons and justification for not providing a noise barrier alongside the A12 at Boreham have been provided within the answer to ExQ1 15.0.5 within the Applicant's Response to the Examining Authority's First Round of Written Questions (ExQ1) [REP2-025].

**6.50 - 6.52**

Quality of life is a broad concept relating to many aspects of individuals' perceptions of their social status, living standards, goals, health and expectations. DMRB LA112 Population and Human Health does not provide a methodology for assessing an 'overall impact on quality of life'. However, the Applicant has assessed the likely health outcomes associated with the day-to-day impact of the increased AM traffic flow in Boreham. Specifically, sheet 1 of Figure 13.3 Human Health Baseline and Impacts [APP-238] shows the main health impacts identified for Boreham village (the moderate severance due to traffic increase and the negative impact from traffic noise at a level associated with sleep disturbance and annoyance). The significance to population health outcomes associated with the predicted change in severance levels is assessed in paragraph 13.18.73 in Chapter 13 Population and Human Health [APP-080]. Overall, the impact of the proposed scheme on community severance in the Boreham village is assessed as negative, but not significant in terms of population health. Information on how significance has been considered in this context is provided in section 8 of Appendix 13.1 Human Health Literature Review and Evidence [APP-153].

The Applicant has responded in relation to mitigation options for the predicted increases in traffic in its response above in

paragraphs 6.10-6.30 Click or tap here to enter text..

The Applicant has responded in relation to noise impacts and mitigation proposals in its response above in Click or tap here to enter text. paragraphs 6.40-6.49.

**6.53 - 6.59**

The Applicant notes Chelmsford City Council's position on the proposed scheme in Boreham Village and the request for a package of measures to discourage traffic from routing through Boreham Village to access junction 19 and additional air quality monitoring and noise mitigation. The Applicant's position on these matters is summarised in response to Relevant Representation RR-079 [REP1-002], in letter exchanges with Essex County Council [Appendix A, REP1-002], and in this document's response to the "Principle of Development" and "Likely Significant Effects" sections of Chelmsford City Council's Local Impact Report.

The Applicant looks forward to continued engagement with the Chelmsford City Council on the Statement of Common Ground.

**6.60 - 6.89**

There is an existing shared pedestrian/cycle facility that provides access along the north side of Main Road which suffers from historic severance at the brideways north (23) and south (45) of the existing A12. The impact of this severance will continue to grow as a result of the largescale developments to the north of the A12, including the proposed Beaulieu Park Station and business park.

The proposed scheme is proposing to address this severance and provide a direct connection from Boreham to the new Beaulieu Park Station through providing a new WCH footbridge at Paynes Lane. With the Railway Station Reserved Matters application and construction of the car park, the alignment of the cycle path towards Beaulieu Park Station will be known and both Paynes lane Bridge and the proposed Station cycle path will be aligned at detail design.

The Paynes Lane bridge would use the Warren Truss type of structure which is coherent with the other footbridges on the proposed

scheme providing a family of structures along the A12 route.

The Applicant has taken the proposed Beaulieu Park Station and Chelmsford Garden Community to the north of Paynes Lane into consideration, carefully balancing the bridge design with the need for high design quality and being visually sensitive to the character of Boreham farmland plateau landscape character area (LCA) and Boreham House listed building and registered park and garden by keeping the structure as low as practicable in the open landscape.

The light and weight-saving Warren Truss bridge is the preferred solution as it provides a smaller footprint for the bridge. The steel equilateral triangles create an almost 'see-through' type aesthetic which camouflages the structure within the surrounding environment, reducing the visual impact of the footbridge across Boreham farmland plateau LCA and Boreham House listed building.

Bridge span requirements are set by the clearance envelope of the undercrossing facility and legislative requirements. The bridge is affected by key-specific constraints such as the Great Eastern railway line, existing A12 carriageway and the proposed Beaulieu Park and Network Rail station development located approximately 90 m from the north end of the bridge. A truss was selected as the preferred option as it minimizes construction depth, thereby reducing the length of the approach ramps, facilitates off-siting and accelerated construction, minimizes maintenance interventions and provides a light and graceful appearance. The Warren truss presented is particularly effective as all the diagonals have been set at the same angle and verticals have been omitted which reduces visual confusion.

Trusses also have the advantage that pedestrian parapets can be incorporated within the structural envelope, without requiring additional posts and fittings. This is particularly important at this location as the parapets will be 1.8m high for equestrian usage which could have a detrimental effect on the aesthetics of other forms of footbridge.

The Applicant provided a Materials and Landscape Palette [REP2-033] at Deadline 2, which provides further indicative materials, structures and landscape proposals which would be used on the proposed WCH bridge.

There are outstanding detailed design elements, including the colour of the steel structure. The Applicant will engage with

Chelmsford City Council and Essex County Council during detailed design.

The proposed scheme has been assessed in accordance with National Highways' Design Manual for Roads and Bridges (DMRB) Walking, Cycling and Horse-Riding Assessment and Review. This assessment includes a review of all existing walking, cycling and horse riding (WCH) provisions and identification of potential impacts, as well as a review of the existing and potential desire lines for WCH usage. This assessment process is continuing into the detail design stage.

The proposed scheme has been designed to comply with current design standards and guidance, including Local Transport Note 1/20 which defines the width of cycle facilities and off-set from the carriageway, so far as practicable given the constraints. The Design and Access Statement (DAS) [APP-268] illustrates the existing and future WCH network as shown on the WCH Masterplan on Appendix A of the DAS [APP-269].

**6.90 - 6.94**

The Applicant acknowledges the position of the Chelmsford City Council with regards to the impact of the proposed scheme on air quality in Boreham. The UK Air Quality Standards are a range of pollutant concentrations recorded over a given time period, which are considered to be acceptable in terms of what is scientifically known about the effects of each pollutant on health and on the environment. Predicted pollutant concentrations are compared against the Standards.

The air quality assessment outlined in Chapter 6 Air Quality of the Environmental Statement [APP-073] considered all changes in emissions with respect to the predicted total concentrations. Modelling predictions have indicated areas where pollutant concentrations across the proposed scheme study area have increased owing to the construction and operational phases. However, areas are also predicted to experience decreases in concentrations and subsequent improvements in air quality.

Of the sensitive receptors considered along Main Road Boreham and Plantation Road, only one receptor (R225) located approximately 10m from the A12 was predicted to exceed the UK Air Quality Standards (UK Air Quality Standards Regulations, 2010) for annual mean NO<sub>2</sub> as a result of increased traffic flows and changes in speed characteristics on the A12 and Main Road.

The predicted total was 40.3µg/m<sup>3</sup> with an increase of 4.0µg/m<sup>3</sup>. Nearby properties (Receptors R30 and R224) did not experience the same magnitudes of increase, nor exceed the UK Standard of 40µg/m<sup>3</sup>. Predicted concentrations of particulates were within the UK Air Quality Standards at all locations here. Please refer to the results presented in Appendix 6.5 [APP-104] and Figures 6.9 and 6.10 of Appendix 6.2 [APP-213 and APP-214 respectively].

The assessment was undertaken conservatively i.e. through the application of long-term trends which addresses uncertainty in vehicle emissions performance, and whilst an exceedance was predicted, it was within the criteria set for the determination of significant effects in accordance with the Design Manual for Roads and Bridges (DMRB) LA 105 and the relevant provisions set out in the NNNPS. NPSNN policies relevant to the air quality assessment are reported in table 6.4 of Chapter 6 Air Quality of the Environmental Statement [APP-073].

**6.95 - 6.109**

The Applicant welcomes Chelmsford City Council's position that it does not have a specific objection to the proposals based on the balance of the overall benefits of the proposal against any adverse cultural heritage effects.

The Council's comments specifically concern the mitigation for proposed works at Junction 19 Boreham Interchange and the impact on the settings of The Generals (Grade II listed) (Asset 57), Boreham House (Grade I listed) (Asset 69) and its Registered Park and Garden (Grade II).

The Applicant welcomes the Council's agreement with the assessment of the impacts on The Generals (Grade II listed) (Asset 57) and Boreham House (Grade I listed) (Asset 69).

Boreham House is located approximately 350m south-west of junction 19 (Boreham interchange) on the A12. It should be noted that in accordance with paragraph 5.130 and 5.131 of the NPSNN the impact of a development on a heritage asset should make a positive contribution to the character and its distinctiveness in relation to the impact on its contribution to the value of the heritage asset itself. Therefore, changes within the setting do not necessarily harm a heritage asset and the Applicant is confident that, as

assessed in the Chapter 7 Cultural Heritage of the Environmental Statement [APP-074] in accordance with the matrix provided in Table 3.8.1 of LA 104 Environmental Assessment and Monitoring (DMRB), the construction phase will have a Moderate effect on Boreham House (Asset 69), and operational phase of the proposals will have a Slight effect, which is in compliance with 5.131 where no substantial harm should be caused to designated assets.

The Council notes that the EMP shows some trees to the east of The Generals are at risk of removal whilst the heritage assessment states these will be retained. While it is agreed that some of the trees to the east of The Generals (Asset 57), adjacent to the footway, may be removed, the larger trees to the rear will remain. The Applicant will look to allow for the retention of existing vegetation along the roadside during the detailed design stage. In addition, The Generals is not directly screened by these trees to the east, as the Listed Building directly faces onto Main Road, with no vegetational screening in front of it.

The Chelmsford City Council recommends that there should be new mitigation planting along the verge of Main Road, to replace any trees removed close to The Generals (Asset 57) or Boreham House (Asset 69). However, whilst due to the narrowness of the verge along the road, this has not been possible, planting is proposed in Section 1.4 of the First Iteration Environmental Management Plan, Appendix I, Landscape and Ecology Management Plan 6.5 [APP-193] paragraph 1.4.14 as part of the mitigation strategy to replace non-native trees and shrubs removed at certain locations, including at Boreham House.

In addition, there will be mitigation planting to the west of Boreham House (Asset 69) within the Chelmer and Blackwater Navigation Conservation Area, as shown in Figure 2.1 of the Environmental Masterplan, Part 1 [APP-086]. This shows an area of new grassland with intermittent tree planting (LE2.5), woodland planting (LE2.1/LE2.2/LE2.4) and an area of wet woodland planting (LE6.1) to the west of the Grade I Listed Boreham House and Grade II Registered Park and Garden. These indicative areas of planting will form the basis of the planting design to be further developed during the detailed design stage when, larger scale plans will be provided.

The First Iteration Environmental Management Plan (EMP) 6.5, Appendix I: Landscape and Ecology Management Plan [APP-193] indicates that new woodland, trees, shrubs and hedge planting are proposed as part of the mitigation strategy for the proposed scheme. The planting locations are indicated on Figure 2.1 Environmental Masterplan [APP-086] to form the basis of the planting design to be developed during the detailed design stage. The non-native trees and shrubs would be used where required for

reinstatement of non-native horse chestnut will be used at Boreham House to offset loss of a Tree Preservation Order tree. The EMP indicates that non-native trees and shrubs forming the reinstatement will be indicated in the Series 3000 Landscape and Ecology Series specifications and accompanying appendices prepared during detailed design.

The Council notes that any further traffic calming measures along Main Road could have an adverse effect on heritage assets. However, no traffic calming measures or signage are proposed in the application along Main Road at this location.

The Applicant has undertaken discussions with the Council regarding the culvert along Main Road in order to identify whether this is a feeder to the historic lake to the front of Boreham House. The presence and importance of the feeder/culvert has been drawn to the attention of the construction team and the Applicant will continue to engage with the Council throughout the detailed design and proposed works with the aim of retaining and safeguarding this feeder to the lake.

In relation to the underground storage tanks for surface water drainage which are proposed to the west of the entrance to the Premier Inn/The Grange, it would not be possible to re-use the historic dried-up pond on the north side of Main Road within the copse to the east of The Generals (Asset 57). This is because unfortunately there are now trees located on the site of the original pond which have been made subject to Tree Preservation Orders by the local authority and their removal would lead to further landscape and ecological impacts.

Mitigation measures are detailed in individual chapters of the Environmental Statement and summarised in the First Iteration Environmental Management Plan [APP-184]. The latter also contains Appendix A: Register of Environmental Actions and Commitments (REAC) [APP-185] which summarises the committed mitigation measures within the chapters of the Environmental Statement and associated appendices.

**6.11 - 6.117**

The Applicant notes Chelmsford City Council's comments on landscape and visual amenity and its overall conclusion that there would not be a major significant adverse effect.



With regard to Paynes Lane Bridge, sensitive visual receptors would include users of Paynes Lane public right of way (PRoW) 213\_45, residents at the southern end of Paynes Lane and residents on the western edge of Boreham approximately 500m away. Visual effects from PRoW 213\_45 that would be caused by the proposed scheme, including Payne's Lane Bridge, are assessed within Appendix 8.3 of the Environmental Statement [APP-121], representative viewpoint 2. Visual receptors considered include users of the PRoW, residents along Paynes Lane and vehicle travellers on Paynes Lane.

During operation year 1, vegetation loss, additional lighting at junction 19 and along Paynes Lane, a gantry on the slip road to junction 19, signage along Main Road, and the introduction of Paynes Lane Bridge to the northern end of Paynes Lane, which would be seen proceeding to the north, would exacerbate the prominence of highway infrastructure, including the A12 and the elevated Beaulieu Park Radial Distributor Road (RDR). During operation in year 15, mitigation planting to the south of the widened A12 would have established to reinstate lost vegetation, improve screening of traffic, gantry and additional lighting along the existing A12, and soften views of Paynes Lane Bridge and the elevated Beaulieu Park RDR. New lighting along Paynes Lane would remain discernible.

During operation in years 1 and 15, the effects from representative viewpoint 2 have not been assessed as significant because the proposed scheme would not alter the overall balance of features and elements that comprise the existing view, in the context of existing highway infrastructure and existing lighting.

Views from Boreham would be read in the context of the A12 and Great Eastern Main Line. Planting to the south of the footbridge and within the ecological mitigation area would establish to screen these views as shown on Figure 2.1 Environmental Masterplan Part 1 [APP-086].

**6.118 - 6.142**

6.118/19

In addition to the national policy set out in the NNNPS, the proposed scheme has also had regard to relevant local plans and policy. A summary of the policy framework is provided in Appendix 1.1 of the Environmental Statement [APP-092]. Local policies relevant to this aspect are included in Table 9.5 of Chapter 9 Biodiversity [APP-076] and include Chelmsford Local Plan Policies S4 and DM16. Policy DM17 is considered within Table 8.4 of Chapter 8 Landscape and Visual [APP-075].

#### 6.120/121

As per paragraphs 9.10.1 and 9.10.2 of Chapter 9 of the Environmental Statement [APP-076] the Applicant has sought to avoid or reduce environmental impacts through the proposed scheme design. This is referred to as embedded (or design) mitigation and is shown on Figure 2.1 Environmental Masterplan Parts 1 to 3 [APP-086 to APP-088]. Chapter 3: Assessment of alternatives, of the Environmental Statement [APP-070] details the design alternatives that have been considered, including the environmental factors which have influenced the decision-making process.

Where practicable, the proposed scheme has been designed to avoid the potential impacts described in Section 9.9 of Chapter 9 Biodiversity [APP-076]. Where this has not been possible, mitigation has been developed to reduce these potential impacts. Mitigation measures would seek to avoid habitat loss, habitat fragmentation, disturbance and species mortality.

Mitigation is secured through the Register of Environmental Actions and Commitments (REAC) [APP-185] within the first iteration Environmental Management Plan [APP-184].

#### 6.125

The Applicant notes the summary of the ecological baseline of relevance to Chelmsford City Council and would like to clarify that the ecological management areas mentioned within paragraph 6.125 are primarily for reptiles, whilst also facilitating an increase in water vole habitat.

#### 6.126

As assessed in paragraphs 9.11.141 to 9.11.144 of Chapter 9 Biodiversity [APP-076], there is potential for an increase in light levels associated with construction activities to negatively impact bats, particularly those species that are less tolerant of light. However, any impacts would be temporary and not significant. Best practice measures would be implemented where practicable to direct lighting away from ecological receptors such as bat roosts (as per commitment LV11 in the REAC [APP-185]), therefore reducing any impact.

6.127

Badger surveys undertaken between 2017 and 2020 (with bait marking surveys in 2021) recorded badger activity throughout the study area, including near junction 19. Due to the sensitive nature of the data, sett locations are not described here or in Chapter 9 Biodiversity [APP-076].

Pre-construction surveys would be undertaken for badger (among other protected species) to update baseline surveys prior to construction and to confirm the status of all setts prior to the start of works (as committed to in BI11 and BI23 in the REAC [APP-185] within the first iteration Environmental Management Plan [APP-184]). Any new information gathered during these surveys would feed into the final licence for badgers that would be submitted to Natural England. All works would be carried out in accordance with the mitigation licence to ensure legal compliance and reduce impacts to badger (as committed in BI24 of the REAC [APP-076]). Other REAC clauses of relevance to badger are: LV11, BI9 and BI25 – BI31.

A draft badger licence (Appendix 9.17 [APP-141]) was submitted as part of the DCO application and a Letter of No Impediment was issued by Natural England on 17 January 2023.

6.128

Disturbance effects are assessed within Chapter 9 Biodiversity of the ES [APP-076]. There would be no significant effects on fauna due to disturbance, however a licence would be obtained from Natural England to prevent a breach of wildlife legislation with respect

to bats and badgers. A Letter of No Impediment has been secured with respect to badgers and is being progressed with respect to bats.

No significant effects were assessed with respect to air quality impacts within this Chelmsford City Council's jurisdiction.

6.129/30/31/32

### **Mortality of wildlife**

While the Applicant acknowledges the risk of mortality of wildlife during operation of the proposed scheme, this risk should be considered within the context of the existing A12. In addition, the implementation of embedded (design) mitigation measures would reduce this impact. The use of embedded mitigation measures such as fencing, culverts with sufficient diameters to be permeable to bats and badgers, and mammal ledges, where practicable, would reduce this impact and provide suitable alternative crossing points to facilitate the movement of wildlife across the proposed scheme (see Section 9.11 of Chapter 9 Biodiversity [APP-076]).

### **Operational noise**

With the exception of bats, operational noise is not predicted to give rise to adverse impacts to any other species. Chapter 9 Biodiversity [APP-076] concludes that there would be potentially significant operational noise disturbance impacts on one roost, Building 107 (note that three roosts are included in Table 9.30, however two of these would be lost during construction). However, mitigation would be delivered through the European Protected Species Mitigation licence for bats, within which B107 would be included, which would reduce this impact to negligible.

For breeding birds, while it is recognised that there could be an impact due to an increase in noise levels, this would be partially mitigated through embedded mitigation measures (as detailed in Section 9.10 of Chapter 9 Biodiversity [APP-076]). Retention of vegetation (as per commitment LV4 of the REAC [APP-185]), including important habitats for birds, and creation of habitat away from the road would also increase carrying capacity for birds in alternative nearby habitat, further reducing the impact on the local

population. For other species (such as badger and barn owl) it is anticipated that they would become habituated to the constant levels of noise close to the road, which is further evidenced by the presence of a main badger sett at Whetmead. A full assessment of the potential operational impacts on each receptor is presented in Section 9.11 of Chapter 9 Biodiversity [APP-076].

There would also be residual benefits for wildlife from low-noise road surfacing, which would be laid on all sections of the A12 (as committed to in NV6 and NV10 in the REAC [APP-185]) and would further reduce any impacts associated with operational noise levels.

### **Operational lighting**

As Chelmsford City Council correctly states, the use of permanent lighting would be developed at the detailed design stage in accordance with best practice guidance to minimise impacts on wildlife (as described in Section 9.10 of Chapter 9 Biodiversity [APP-076]). These measures would sufficiently reduce any impacts to negligible.

6.134/135

The following commitments within the REAC [APP-185], appended to the First Iteration Environmental Management Plan are relevant.

1. Commitment LV4 states 'Existing vegetation within the Order Limits including temporary works areas would be retained as far as reasonably practicable. Particular attention would be given to the retention of mature vegetation including the following, which would be retained in accordance with, as a minimum, the Retained and Removed Vegetation Plans [APP-035 and AS-017]. Vegetation to be removed is shown on the same plan.

- Ancient, veteran and notable trees (both verified and potential)

- Trees subject to tree preservation orders

- Specimen trees
- Category A and B trees
- Important hedgerows
- Ancient woodlands.

2. All trees to be retained would be protected throughout the construction period in accordance with BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations.'

3. Commitment LV5 states 'Works to Tree Preservation Orders, veteran, ancient and notable trees would be supervised by the Ecological Clerk of Works (ECoW) and supported by an experienced arboriculturist. In the event tree canopy pruning is required to facilitate the works, this would be undertaken by qualified and competent staff working to BS 3998:2010 Tree work – Recommendations.'

4. Commitment LV6 states 'An Arboricultural Method Statement and Tree Protection Plan would be prepared during the detailed design phase, refined following final design agreement and in place prior to works affecting trees commencing and appended to the EMP. The Arboricultural Method Statement and Tree Protection Plan would include areas of special measures to protect and retain features that would be subject to encroachment and localised removal. This would be based on the special measure areas, construction exclusion zones and outline tree protection measures presented within the Arboricultural Impact Assessment (Appendix 8.4 of the Environmental Statement [APP-122]).

The Applicant welcomes the support of the Chelmsford City Council in principle with regard to the planting design and confirms that the landscape design would be refined at detailed design stage and provided within the Second Iteration of the Environmental Management Plan, Appendix I, Landscape and Ecology Management Plan (LEMP).

The Applicant has sought to maximise biodiversity delivery. Where habitats are lost as result of the proposed scheme, new habitats of equal or greater value would be created (as described in Section 9.13 of Chapter 9 [APP-076]).

6.136

Vegetation loss in the vicinity of Beaulieu Park development is shown on sheets 2 and 3 of the Retained and Removed Vegetation Plans [APP-035]. No loss of vegetation is illustrated north of the Great Eastern Main Line railway in the vicinity of Beaulieu Park development.

6.142

The Applicant welcomes ongoing discussions with Chelmsford City Council as required with respect to the Statement of Common Ground.

**6.143 - 6.151**

The Applicant does not recognise the figures for BMV agricultural land loss quoted by the Chelmsford City Council of 72.4 ha, comprising 11.4 ha of Grade 2 and 61.1 ha of Subgrade 3a land. Table 10.13 in Chapter 10 Geology and Soils of the Environmental Statement [APP-077] reports permanent and temporary land-take by ALC grade. Notwithstanding this inconsistency, Table 10.13 in Chapter 10 does identify that approximately 39.9% of BMV agricultural land within the Order Limits would be permanently lost, which is similar to the 39% stated by Chelmsford City Council. Clarification on what constitutes 'permanent development' within the context of quantifying agricultural land-take reported in Chapter 10 Geology and Soils [APP-077] of the Environmental Statement is provided in the Applicant's response to Natural England's relevant representation [RR-184-010] [REP1-002].

**6.152 - 6.152**

The Applicant notes the Chelmsford City Council's comment that it will defer to Essex County Council Minerals and Waste Planning Authority on matters of material assets and waste. For the benefit of the Chelmsford City Council, the Environmental Statement Chapter 11: Material Assets and Waste [APP-078] states the following with regards to operational waste management and disposal.

- Paragraph 11.9.17: DMRB LA 110 Material assets and waste specifies that the assessment shall report on the first year of operational activities (opening year). It has been assumed that no significant maintenance activities would occur during the first year of operational activities on a newly constructed highway asset (target opening year 2027), and so there is not likely to be significant waste generation.
- Paragraph 11.9.18: Operational impacts have therefore been scoped out of the assessment on the basis that no likely significant effects would be realised. Although the opening year is a time period not necessarily confined to operational effects, any construction phase effects overlapping within this period are captured within the construction phase assessment. This was agreed with by both the Planning Inspectorate and Essex County Council in the Scoping Opinion (Planning Inspectorate, 2021).
- Paragraph 11.9.19: While the Overarching National Policy Statement for Energy EN-1 (Department of Energy and Climate Change, 2011a) requires an assessment of the impact of the waste arising from energy developments on the capacity of waste management facilities to deal with other waste arising in the area for at least five years of operation, it has been assumed that no significant waste generation is likely to be realised during this period. Operational impacts have therefore been scoped out of the assessment on the basis that no likely significant effects would be realised.
- Paragraph 11.9.20: Notwithstanding this, the design process would inherently seek to reduce the generation of waste throughout the life cycle of the proposed scheme. Design choices and the choice of materials would make a significant contribution to reducing the environmental impacts associated with material assets and waste during operation, by influencing the required method and frequency of maintenance, and facilitating opportunities to recover and regenerate materials and products at the end of first life.



· Paragraph 11.9.21: It is also assumed that the assessment of any environmental impacts and effects associated with material assets and waste during any large-scale future maintenance, renewal or improvement works beyond the opening year would be undertaken by National Highways East of England Asset Delivery Contractor(s) (or equivalent) in accordance with the requirements of DMRB LA 110 Material Assets and Waste (or any future environmental assessment guidance specified by National Highways). It also assumes that the gas main operating company would be responsible for undertaking any future environmental assessment associated with maintaining the diverted gas main beyond the first five years of operation.

Operational waste would therefore be managed by those contractors working on behalf of National Highways and the gas main operating company. All waste would be managed in accordance with the extant legislative and policy requirements during the operation of the proposed scheme.

Given that it is currently standard practice in construction, it is assumed that any large-scale future maintenance, renewal or improvement works would be accompanied by a Site Waste Management Plan and Materials Management Plan (or equivalents, as relevant to the works).

**6.153 - 6.155**

Within Chapter 12: Noise and Vibration of the Environmental Statement [APP-079], the Applicant has explained how measures have been adopted where possible to mitigate the increase in noise caused by an increase in traffic. Paragraphs 12.10.16 and 12.10.17 of Chapter 12: Noise and Vibration provide details of the proposed road surfacing on the A12 passed Boreham. The Applicant is proposing to surface the southbound carriageway using a road surface with better noise reducing properties than a conventional low noise surface. The provision of this surface will ensure that there are no significant adverse effects for those dwellings alongside the A12, and the change in noise would be negligible (< 1dB(A)). The use of this road surface is secured in commitment NV10 within the first iteration Environmental Management Plan, Appendix A: Register of Environmental Actions and Commitments (REAC) [APP-185].

Paragraph 12.11.31 of Chapter 12: Noise and Vibration explains there are 28 dwellings along Main Road where there would be minor increases in noise (between 1dB(A) and 2.9dB(A)) with the absolute noise level above the Significant Observed Adverse Effect Level (SOAEL). It is not possible to mitigate these significant adverse effects and the reasons are provided within paragraph 12.11.31.

Aside from these 28 dwellings there is predicted to be a negligible change in noise, and no change to the level of vibration, throughout Boreham.

**6.156 - 6.156**

The Applicant has responded to these in full in response to the Local Impact Report.

**6.157 - 6.157**

The Applicant notes the Council's comments and has dealt with the issues relating to Boreham House in paragraphs 6.60-6.89 .

**6.158 - 6.161**

The views in paragraph 6.161 that "It is likely that the effect upon Climate Change can be mitigated through suitable mitigation, including embedded mitigation and those designed to support active travel" and that "On balance, it is considered that these measures are likely to outweigh any impact upon Climate Change when considered in the wider context of the benefit of the proposal in its totality" are welcomed by the Applicant.

**6.162 - 6.168**

The Applicant notes the comments made by the Council and looks forward to continued engagement with the Council in regard to the development of the Statement of Common Ground.

## 7. Conclusions

7.1 - 7.14

The Applicant notes the comments made by the Chelmsford City Council.

The Applicant has provided detailed responses to cover these topics in preceding sub-parts.

The Applicant looks forward to continued engagement with the Chelmsford City Council.