

# A12 Chelmsford to A120 widening scheme

TR010060

## 9.41 Applicant's Responses to ExQ2

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(Examination Procedure) Rules 2010

**A12 Chelmsford to A120 widening scheme**

Development Consent Order 202[ ]

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**Applicant's Responses to ExQ2**

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## Introduction

- 1.1.1 The Development Consent Order (DCO) application for the A12 Chelmsford to A120 widening scheme (the 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 This document sets out the Applicant's response to Examining Authority's Second Round of Written Questions (ExQ2) [PD-009]. The Applicant's response can be found in Section 2 of this document.
- 1.1.3 The Applicant has replicated the Examining Authority layout for Written Question 2 for ease of reference.
- 1.1.4 For ease of reference, a table of abbreviations used in this document is provided in Table 1.1.

**Table 1.1 Abbreviations Used**

Abbreviation	Definition
AQO	Air Quality Objective
CA	Compulsory Acquisition
DCO	Development Consent Order
DMRB	Design Manual for Roads and Bridges
DQRA	Detailed Quantitative Risk Assessment
EA	Environment Agency
ECC	Essex County Council
EEL	Edmundson Electrical
EFT	Emission Factor Toolkit
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ES	Environmental Statement
FOIA	Freedom of Information Act 2000
FRA	Flood Risk Assessment
GHG	Greenhouse gas
GREEN	Green Energy Enablement

HEWRAT	Highways England Water Risk Assessment Tool
HE	Historic England
LAQM	Local Air Quality Management
LOAEL	Lowest Observed Adverse Effect Level
LPL	Lynfield Properties
NH	National Highways
NHS	National Health Service
NNNPS	National Networks National Policy Statement
NPPF	National Planning Policy Framework
NSIP	Nationally Significant Infrastructure Project
OCTMP	Outline Construction Management Plan
PAQAP	Project Air Quality Action Plan
PCM	Pollution Compliance Mapping
PMA	Private Means of Access
PROW	Public Rights of Way
REAC	Register of Environmental Actions and Commitments
RIS	Road Investment Strategy
RR	Relevant Representation
SOAEL	Significant Observed Adverse Effect Level
TAG	Transport Analysis Guidance
TCE	The Crown Estate
VOA	Valuation Office Agency
WCH	Walking Cycling and Horse riding
WR	Written Representation

## Applicant's Responses to ExQ2

### 1. General and Cross-topic Questions

#### 2.1.1

##### Examiner's Question to the Applicant

On 14 March 2023, the Government published its draft National Networks National Policy Statement for consultation. By Deadline 4, (Tuesday 11 April 2023), please can the Applicant provide full details of how the Proposed Development accords with the policy as set out in the draft consultation document, having regards to the advice contained within Paragraphs 1.16 and 1.17 in relation to transitional provisions.

##### Applicant's Response

As the proposed scheme was accepted for examination before the designation of the draft NNNPS, the 2014 NNNPS will remain in force in its entirety and have affect as per paragraphs 1.14 and 1.16 of the draft NNNPS.

It is noted by the Applicant that the draft NNNPS is potentially capable of being important and relevant considerations in the decision making process and therefore has produced an updated Case for the Scheme Appendix G: draft National Networks National Policy Statement (NNNPS) Accordance Table) setting out how the proposed scheme accords with the policy as set out in the draft NNNPS.



## 2. Air Quality and Emissions

### 2.2.1

#### Examiner's Question to the Applicant

ES Chapter 6 [APP-073], Air Quality, identifies that during the peak construction year, two human health receptors (R189 and R193) were found to be at risk of exceeding the annual mean NO<sub>2</sub> Air Quality Objectives (AQO). These receptors were also shown to exceed the threshold once the Proposed Development is operational. Given that in both instances levels are predicted to exceed AQO during both construction and operation, notwithstanding details already submitted, please can the Applicant provide more justification as to why the need for an Air Quality Management Area (AQMA) and associated Project Air Quality Action Plan (PAQAP) is not triggered at these locations.

#### Applicant's Response

##### Overview of the Modelled Exceedances at Receptors

The air quality modelling predicted exceedance of the NO<sub>2</sub> annual AQO at two human health receptors (residential properties referenced as R189 and R193) during the peak construction year 2025 and in the opening year 2027 both with and without the proposed scheme. The increase in NO<sub>2</sub> was classed as imperceptible in the construction year (i.e. <0.4µg/m<sup>3</sup>) and small in the opening year (i.e. >0.4µg/m<sup>3</sup> and <2.0µg/m<sup>3</sup>) (see Chapter 6 Air Quality Table 6.16 in the Environmental Statement [APP-073]). A third human health receptor R225 was also found to exceed the NO<sub>2</sub> AQO in the opening year for the with scheme scenario but not in the no scheme scenario. In this case the increase in NO<sub>2</sub> concentration was classed as medium (i.e. >2.0µg/m<sup>3</sup> and <4.0µg/m<sup>3</sup>). Further information on these assessments is discussed within the Environmental Statement Chapter 6: Air Quality Assessment [APP-073] Section 6.9.

## **DMRB approach to preparing a PAQAP**

In accordance with the DMRB LA105 a Project Air Quality Action Plan (PAQAP) must be included in an air quality assessment where the assessment concludes that the project triggers a significant air quality effect and / or affects the UK's reported ability to comply with the Air Quality Directive in the shortest timescales possible. For the proposed scheme, the Applicant considers that a PAQAP is not required for the following reasons.

A conclusion of no significant effect was reached in relation to the impact of the proposed scheme at the project level. This conclusion applied the approach set out in DMRB LA 105 Table 2.92 whereby, for a given magnitude in predicted increase in NO<sub>2</sub> concentration, no significant effect at a project level was determined on the basis of the number of individual properties suffering a worsening of an existing exceedance and creation of a new exceedance. The numbers of receptors with medium and small exceedances predicted for the proposed scheme are well within the ranges provided in DMRB LA 105 Table 2.92.

In DMRB LA 105 the requirement for a PAQAP is also linked to the risk that the UK would not comply with the EU Air Quality Directive (which was transposed into English law in the Air Quality Standards Regulations, 2010). The reporting mechanism for the compliance risk assessment involves modelling NO<sub>2</sub> concentrations on the pollution compliance mapping (PCM) network – these are prescribed road links within urban areas. The PCM links are shown in Figure 6.2: Air Quality Baseline Conditions [APP-206] and the results are shown in Appendix 6.5: Air Quality Results [APP-104] Tables 1.3 and 1.6. The assessment concluded that the proposed scheme is not likely to interfere with the ability of the UK to meet the EU Limit Value for NO<sub>2</sub> in the shortest possible time. The exceedances predicted at the three human health receptors referred to in this response are not related to the compliance risk assessment.

## **Relationship between DMRB Assessment and Local Air Quality Management**

The DMRB LA 105 guidance provides a methodology to assess modelled air pollutant concentrations at sensitive receptors in the future. Whilst there is inherent uncertainty in modelling and with future predictions, through the application of LTTE6, the Applicant's predictions are conservative meaning future year annual mean NO<sub>2</sub> concentrations are likely to have been over-estimated. The DMRB

LA 105 methodology provides guideline bands for the number of properties within a threshold band above which a significant effect is concluded. As per paragraph 2.94 of DMRB LA 105, as the total number of receptors is less than the lower guideline band for all the six magnitude of change categories, it was concluded that the proposed scheme is unlikely to trigger a significant air quality effect. Hence why no PAQAP has been produced. The Applicant acknowledges the modelled potential exceedance, but considers this exceedance is less likely to occur due to the conservative assumptions made within the modelling.

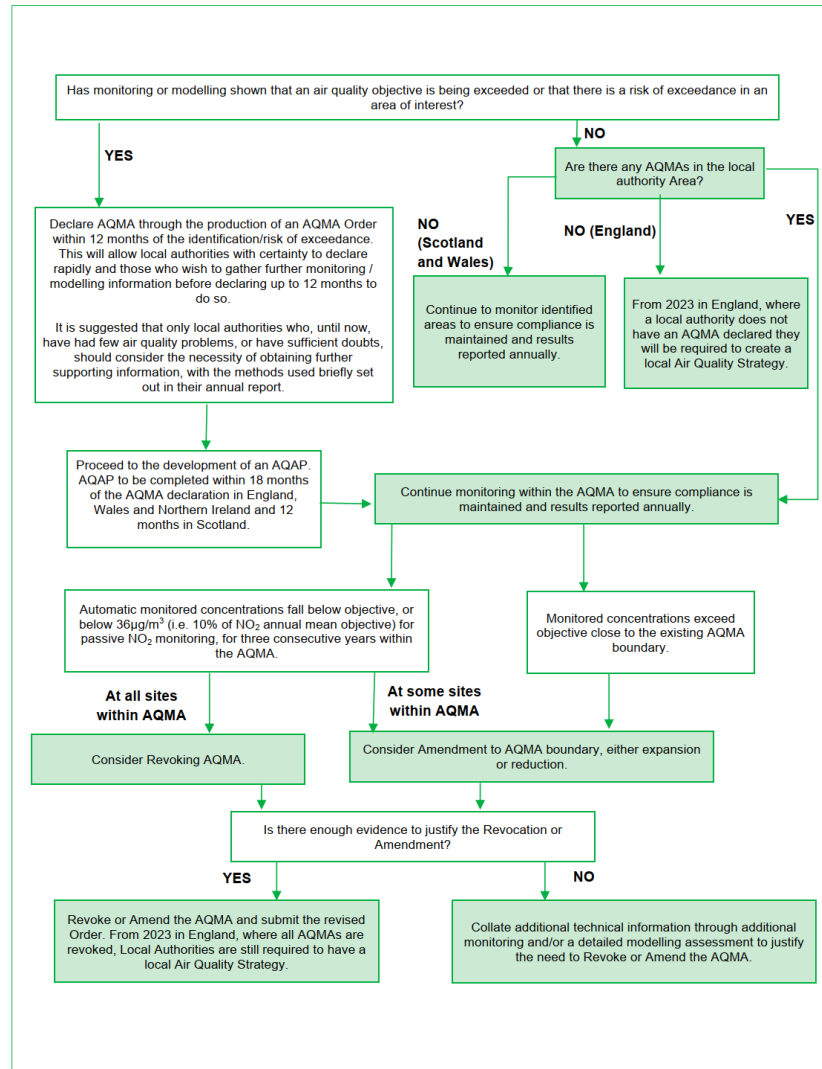
Local Air Quality Management (LAQM), on the other hand, is focussed on current air pollutant concentrations and is predominantly monitoring led (i.e. based on measured pollutant concentrations over a calendar year, in areas of concern). Where an exceedance is monitored, the LAQM process requires that the extent of the exceedance is confirmed through monitoring or modelling. Once that has been established, an Air Quality Management Area (AQMA) boundary is declared and an Air Quality Action Plan produced. The measures within it would outline ways of reducing pollutant concentrations. There is therefore no requirement for the local authority to declare an AQMA at this stage. An AQMA will only need to be required should monitoring indicate that the AQO is exceeded, which as noted previously is considered less likely.

### **The Local Air Quality Management regime**

The declaration of an AQMA falls under the remit of local authorities. LAQM is the statutory process by which local authorities monitor, assess and take action to improve local air quality as required under the Environment Act 1995 (as amended by the Environment Act 2021 and secondary legislation). Technical guidance Local Air Quality Management (LAQM-TG22) is designed to support local authorities in carrying out their duties.

The process of declaring an AQMA is described in Box 3.2 of LAQM-TG22 which is reproduced below.

Box 3-2 – AQMA Process Diagram



If monitoring or modelling has shown that an AQO has been exceeded or a risk of an exceedance in an area of interest is likely, the local authority has to declare an AQMA through the production of an AQMA Order. However, the declaration of an AQMA is a considered approach rather than an immediate response, as the following text confirms. "Declare AQMA through the production of an AQMA Order within 12 months of the identification/risk of exceedance. This will allow local authorities with certainty to declare rapidly and those who wish to gather further monitoring / modelling information before declaring up to 12 months to do so. It is suggested that only local authorities who, until now, have had few air quality problems, or have sufficient doubts, should consider the necessity of obtaining further supporting information, with the methods used briefly set out in their Annual Status Report (ASR)" (LAQM-TG22, see Box 3-2 above).

For the proposed scheme, the Applicant considers that future exceedances are unlikely due to the conservative nature of the air quality model. In other words, the Applicant considers that the air quality results are over-estimating future NO<sub>2</sub> concentrations based on the uplift applied via the Long Term Trends Gap Analysis (LTTE6) in accordance with the DMRB LA 105. This analysis is discussed further in Section 1.15 of the ES Appendix 6.3: Dispersion Modelling Process [APP-102].

The Applicant considers that the most appropriate way forward would be to monitor NO<sub>2</sub> at the three locations to determine the actual NO<sub>2</sub> concentrations and compare them with the Annual Mean AQO of 40µg/m<sup>3</sup>. If, as expected, the NO<sub>2</sub> concentrations are below the AQO, there would be no need to declare an AQMA. Ideally the NO<sub>2</sub> monitoring should be conducted over 12 months to compare the results against the Annual Mean NO<sub>2</sub> AQO. However, monitoring over a shorter period (i.e. less than nine months) is also possible given that the results can still be annualised to obtain the annual monitored NO<sub>2</sub> concentration.

The evidence gathered would facilitate the LAQM prescribed process for declaring an AQMA (as outlined above) if required. Furthermore, the annual mean monitoring results could then be considered alongside the predicted contribution from the proposed scheme, to support the Applicant's assertion that an exceedance is unlikely in 2027.

The Applicant will continue to discuss aspects of monitoring at these locations with the relevant local authority.

Should an exceedance of the AQO be measured in the future, National Highways would have a legal duty to act as an air quality partner of the relevant local authority to work towards removing this exceedance under The Air Quality (Designation of Relevant Public Authorities) (England) Regulations 2022.

## 2.2.2

### Examiner's Question to the Applicant

Reference has been made to WHO Guidance by Mr Mark East [AS-039]. Can the Applicant explain the relevance of the WHO guidelines, how they have been considered and what weight the SoS should give to these?

### Applicant's Response

The World Health Organisation (WHO) revised its guideline values for long term exposure to PM10 and PM2.5 in 2021 (to 15µg/m<sup>3</sup> and 5µg/m<sup>3</sup> respectively). While it is acknowledged that these values are lower than current Air Quality Standards in England, (i.e. 40 µg/m<sup>3</sup> for PM10 and 20 µg/m<sup>3</sup> for PM2.5, the latter to be reduced to 10 µg/m<sup>3</sup> by 2040) they are guidelines only and are not currently part of UK legislation or policy requirements. The Applicant has assessed air quality impacts against the legally binding UK Standards, which are set for the protection of human health and the environment.

As the WHO guidelines are not part of UK legislation or policy, the National Networks National Policy Statement requires no assessment against them. The Applicant is of the view that they carry little weight in decision making when compared with the assessment undertaken, which is in accordance with current legislation and is compliant with policy such as the NNNPS.

## 2.2.3

### Examiner's Question to the Applicant

The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 have recently come into force. At the same time, the UK Government also published the Environmental Improvement Plan which includes an interim target. What are the implications of these recent Regulations for the Proposed Development and how should the SoS consider these in their decision making?

## Applicant's Response

The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 set a new PM2.5 Annual Mean Concentration Target (AMCT) of 10 µg/m<sup>3</sup> to be met by 2040 in England. The Regulations do not set any interim targets.

Regulation 4 of the 2023 Regulations provides:

“The annual mean concentration target is that by the end of 31st December 2040 the annual mean level of PM2.5 in ambient air must be equal to or less than 10 µg/m<sup>3</sup> (“the target level”).”

Importantly, under the title “Measurement”, Regulation 5 of the 2023 Regulations states:

“(1) The annual mean concentration target is met by 31st December 2040 if, at every relevant monitoring station, the annual mean level of PM2.5 in ambient air, calculated in accordance with regulation 15 and rounded to the nearest whole number of µg/m<sup>3</sup>, is equal to or less than the target level in the year 2040.

(2) In paragraph (1), "relevant monitoring station" means a monitoring station from which fixed measurements of PM2.5 are taken—

(a) throughout the whole of the year 2040, disregarding any periods during that year in which the monitoring station is temporarily out of operation, for example for repair or maintenance; and

(b) which meet the minimum annual data capture requirement in that year.”

As Regulation 5(1) makes clear the annual mean concentration target only applies at specific locations, i.e. at a relevant monitoring station, and is not to be applied generally. It is not a target which is legally required to be met in 2040 at locations other than at a relevant monitoring station.

Regulation 12(2) of the 2023 Regulations states that every AQSR monitoring station which was in operation immediately before the coming into force of the 2023 Regulations is a monitoring station for the purposes of those Regulations.

The nearest such monitoring station is in Southend-on Sea and will not be affected by emissions associated with the Scheme.

The interim target level for PM2.5 of 12 µg/m3 by 2028 is published within the UK Government's Environmental Improvement Plan and has been introduced as a means of tracking the outcomes of the measures to improve air quality listed in the Plan (See Goal 2: Clean Air).

The "Air quality PM2.5 targets Detailed Evidence report Dated 6 May 2022" was the consultation document relating to the adoption of the fine particulate targets now found in the 2023 Regulations. This explained (page 11):

"The Environment Act 2021 aims to drive further reductions by establishing a duty to set a target specifically on PM2.5 concentration, alongside a further long-term target for air quality. Long-term targets set through the Act will be supported by interim targets, which will set a five-year trajectory towards meeting the long-term targets. Whilst interim targets are not legally binding, they set a clear direction of travel and will enable an ongoing assessment of whether the government is on track to meet its longer-term target ambitions. The long-term targets need to be brought before parliament by 31 October 2022."

The purpose of the interim targets is to enable assessment of how well the Government is on track to meet the 2040 target. Where it is not on track, then this can prompt further policy intervention by Government. The interim targets are not legally binding – there is no legal duty that they be met.



Further, since they are to be used to measure the extent to which the Government is on track to meet the 2040 target, they are to be measured at the same locations as the 2030 target. In other words, the interim target is only to be measured at the relevant monitoring stations identified by the Secretary of State for that purpose.

Since the Scheme will not affect emissions at a monitoring station location to which the 2023 Regulations apply, the PM2.5 concentration targets and the interim targets do not have any implications for the Scheme.

It must also be remembered that the UK Air Quality Standards for particulates (i.e. 40 µg/m<sup>3</sup> and 20 µg/m<sup>3</sup> for PM10 and PM2.5 respectively) are still applicable and have been applied in the Environmental Statement Chapter 6: Air quality assessment [APP-073] for the determination of significant effects.

On this basis, the Secretary of State can be satisfied that the 2023 Regulations and the interim PM2.5 target do not have any material implications for his decision making.

## 2.2.4

### Examiner's Question to the Applicant

Have changes to vehicles, mainly the phasing out of petrol/diesel and the increased use of electric vehicles been factored into the assessment presented in ES Chapter 6, Air Quality [APP-073]? If so, what are the predicted effects of these changes and what assumptions have been made with regards to uptake/usage of electric vehicles over the assessment period?

### Applicant's Response

The vehicle mixes used within the air quality modelling, which are incorporated into Defra's Emission Factor Toolkit (EFT) allow for projected changes to the composition of the vehicle fleet over time, including changes to the proportions of electric vehicles, based largely on policy and economic factors prevailing at that time. However, the projections in the EFTv10 do not take into account the ban

on sales of petrol and diesel cars / LGVs by 2030, which was announced in November 2020, as this commitment was made after the fleet composition projections within EFTv10 were produced (i.e. in 2019). The proportions of electric vehicles in future years within the EFTv10 are therefore likely to be underestimated and the outcomes of the air quality assessment (Environmental Statement Chapter 6: Air quality [APP-073]) likely to be conservative as a result, as they are based on lower proportions of EV's in the fleet (which have zero exhaust emissions) in future years than is likely to be the case.

It should be noted, however, that it is not possible at this stage to demonstrate the effects of higher proportions of electric vehicles on the outcomes of the air quality assessment. This is because the air quality assessment does not include source apportionment, which determines the contribution of emissions from each vehicle category (e.g. petrol/ diesel cars) and the subsequent concentration of NO<sub>2</sub> and PM at sensitive receptors due to different types of vehicles. Furthermore, updated fleet composition projections are yet to be published.

The following text provides supplementary information relating to the EFT and the air quality assessment.

#### **What is the EFT:**

The EFT is based on national road traffic information verified in 2018 (i.e. road vehicle fleet make-up). Emission rates (e.g. NO<sub>x</sub> and PM) are projected to future years to account for changes in the fleet make-up in accordance with national policy and current trends prevailing at that time. It is worth noting that there is typically a two-year lag between the base (2018) and issue year to allow sufficient time to update EFT assumptions on future vehicle fleet make-up.

#### **What EFT version has been modelled:**

Environmental Statement Chapter 6: Air quality [APP-073] has applied emission factors from the EFT v10 (August 2020) to the air quality modelling. A more recent v11 (November 2021) has subsequently been released. Emission modelling assumptions are unchanged up to 2030 and therefore irrespective of the EFT version used the results for 2025 and 2027 would be identical and the updated EFT has no implications for this assessment.

**How the underperformance of Euro 6 vehicles within the EFT has been addressed:**

Along with the proportion of electric vehicles in the fleet, the magnitude of road traffic NOx emissions is also affected by the real-world performance of emissions abatement equipment relative to that which is expected (with expected emissions defined by a series of increasingly stringent Euro emission standards, with the latest being Euro 6). To address the uncertainty in the real-world performance of Euro 6 vehicles on predicted future roadside nitrogen dioxide concentrations using Defra tools (e.g. the EFT version 10 and version 11), the modelling assessment undertaken by the Applicant (in accordance with the DMRB LA105) has applied the Long-Term Trend gap factor (LTTE6). This takes into consideration the assumed roadside rates of reduction in NOx and NO2 by Defra's modelling tools compared to observed roadside monitoring trends i.e. the gap between the predicted reductions and those observed. This approach increases the future predicted NO2 concentration in the peak construction and operational opening years (i.e. 2025 and 2027 respectively) compared to that which would be derived solely using Defra tools [see Agenda Item 3 – Air Quality Reference 62 – REP3-012]. Again, this provides a conservative assessment.

## In summary:

- Changes in fleet composition, including the proportion of electric vehicles, are incorporated into Defra tools in line with policy prevailing at that time, however, the prohibition on the sale of new petrol and diesel cars/ LGVs by 2030 is not accounted for within the EFTv10.
- The EFT used in the air quality assessment likely underestimates EV fleet proportions in future years, which would result in a conservative estimate of road traffic emissions for 2025 and 2027.
- V10 and V11 of EFT have identical vehicle fleet projections up to 2030, and
- The LTTE6 Gap factor is applied to modelled results to address uncertainty in the real-world performance of more modern vehicles.

## 2.2.5

### Examiner's Question to the Applicant

In relation to human health receptor R225, the submissions from the Applicant indicate that, despite a predicted exceedance of the AQO at this location, the ES concludes that there will be no significant effects and therefore no mitigation is proposed. Notwithstanding this, given the acceptance that the AQO is predicted to be exceeded, which in other circumstances could lead to the designation of an AQMA and preparation of a PAQAP, please can the Applicant provide further justification as to why they do not consider it necessary in this instance.

### Applicant's Response

The Applicant provides a detailed explanation of the procedures for designating an AQMA and the preparation of a PAQAP in its response to ExQ2 2.2.1 [Applicant's Reference TR010060/EXAM/9.41]. The process for determining whether a PAQAP is required is part of the methodology set out in the Design Manual for Roads and Bridges (DMRB) LA 105 and is based on air quality modelling. The process for designating an AQMA is the responsibility of the local authorities and is largely based on monitored data. The two approaches are described below.

The DMRB LA 105 guidance provides a methodology to assess modelled air pollutant concentrations at sensitive receptors in the future. There is inherent uncertainty in modelling and with future predictions, however, through the application of LTTE6, our predictions are conservative meaning future year annual mean NO<sub>2</sub> concentrations are likely to be over-estimated. The DMRB LA 105 methodology provides guideline bands for the number of properties within a threshold band above which a significant effect is concluded. As per paragraph 2.94 of DMRB LA 105, as the total numbers of receptors are less than the lower guideline band for all the six magnitude of change categories, it was concluded that the proposed scheme is unlikely to trigger a significant air quality effect. Hence why no PAQAP has been produced. The Applicant acknowledges the modelled potential exceedance, but considers this exceedance is less likely to occur due to the conservative assumptions made within the modelling.

LAQM, on the other hand, is focussed on current air pollutant concentrations and is predominantly monitoring led (i.e. based on measured pollutant concentrations over a calendar year, in areas of concern). Where an exceedance is monitored, the LAQM process

requires that the extent of the exceedance is confirmed through monitoring or modelling. Once that has been established, an AQMA boundary is declared and an Air Quality Action Plan produced. The measures within it would outline ways of reducing pollutant concentrations. There is therefore no requirement for the local authority to declare an AQMA at this stage. An AQMA will only need to be required should monitoring indicate that the AQO is exceeded, which as noted previously is considered less likely.

The Applicant will continue to discuss aspects of monitoring at this location with the local authority.

Should an exceedance of the AQO be measured in the future, National Highways would in any case have a legal duty to act as an air quality partner of the relevant local authority to work towards removing this exceedance under The Air Quality (Designation of Relevant Public Authorities) (England) Regulations 2022.

### 3. Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))

#### 2.3.1

##### Examiner's Question to MDC

Can MDC comment on the extent to which the Applicant's response to ExQ1 – 7.0.3 [REP2025] and the results of botanical and species surveys undertaken at Blue Mills (submitted at Deadline 2) [REP2-026 to REP2-029], address the concerns raised in MDC's LIR [REP2-068] regarding potential impacts on the Blue Mills nature reserve?

##### Applicant's Response

N/A

## 2.3.2

### Examiner's Question to NE

Considering the Applicant's responses to ExQ1 - 3.0.9 and 3.0.10 [REP2-025], can NE confirm whether it remains content that the Proposed Development would not result in an LSE on any of the European sites considered in the assessment?

### Applicant's Response

N/A

## 4. Climate Change

### 2.4.1

#### Examiner's Question

No further questions at this stage.

#### Applicant's Response

N/A

## 5. Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations

### 2.5.1

#### Examiner's Question to the Applicant

An objection from the Bolton family and Hammond Estates LLP was lodged at REP2-051 and a response was provided at REP3-009. It was expected that there would be a speaker on behalf of the family at the Compulsory Acquisition Hearing (CAH1) and whilst one registered, no appearance was made. It is therefore assumed that discussions have continued but the objection is of course still outstanding. Please confirm the latest position.

#### Applicant's Response

Both parties are working towards a position that can be agreed and detailed plans are being produced to reflect this negotiated position.

Please see the Applicant's response to the Interested Party's written representation REP2-051 in the Applicant's Comments on Written Representations [REP3-009].

### 2.5.2

#### Examiner's Question to the Applicant and Countryside Zest

Countryside Zest made a further submission at REP2-046-001. The response at REP3-009 indicated that there were on-going discussions between the parties. What progress has been made with these?

### **Applicant's Response**

Discussions are ongoing with the Interested Party, with monthly meetings taking place to progress matters, the latest of which was on 10 March 2023.

The Applicant has provided information to the Interested Party in relation to the proposed diversion of a water main. The Interested Party proposed a plan on 10 February 2023 setting out their preferred solution to facilitate both projects. The proposal is largely acceptable, however, there are a few minor issues still to be resolved.

The Applicant is confident that agreement can be reached before the end of examination.

### **2.5.3**

#### **Examiner's Question to the Applicant and Network Rail**

Addleshaw Goddard LLP on behalf Network Rail helpfully summarised their client's position [REP3-074]. At the moment, Network Rail are maintaining their objection [REP2-093]. One of their primary concerns relates to the siting of the Paynes Lane footbridge and, in particular, the height and width of this. The ExA viewed the proposed siting in their Accompanied Site Inspection ("ASI"). Where have these discussions reached?

### **Applicant's Response**

The concerns that Network Rail have were only shared with the Applicant in the written reps shortly before the hearings, there was no detail given for the concerns other than those stated above. The Applicant has now received preliminary information relating to this matter.



The Applicant has received and overlaid the proposed Beaulieu Park Station design with the proposed Paynes Lane Bridge design. This comparison has been sent to Network Rail (16 March 2023) and the Applicant is awaiting feedback from Network Rail.

The Applicant continues to hold regular meetings currently weekly, or more frequently, and is actively aiming to provide Network Rail the responses to resolve the concerns.

The Applicant's view is that the proposed bridge is outside the exclusion zone of the Overhead Line Equipment and its abutment is sited outside of Network Rail owned land so should not affect the safe operation of the railway as expected that site lines would remain within Network Rail controlled land.

## 2.5.4

### **Examiner's Question to the Applicant, CCC and Boreham Conservation Society**

Discussions on the Paynes Lane footbridge have been taking place with other bodies. Please confirm where these have reached

### **Applicant's Response**

The Applicant has held meetings with Countryside Zest, Chelmsford City Council (CCC) and Essex County Council (ECC) prior and post submission of the DCO on the design of Paynes Lane Bridge and associated ramps. Key meetings were held prior to submission to shape and agree the northern ramp design, these included:

- 9th June 2022: Progress meeting on bridge proposals with ECC
- 17th June 2022: Progress meeting on bridge proposals with ECC
- 8th July 2022: Progress on bridge and ramp design with ECC, CCC and Countryside Properties
- 15th July 2022: Final pre-application progress meeting with ECC

Further discussions continue to take place with both Essex County Council whose main focus is now on the southern ramp alignment, and Chelmsford City Council whose main focus is on the visual finish of the bridge.

These discussions are captured in the draft Statement of Common Grounds submitted at Deadline 2 [REP2-016] and [REP2-018] which will be updated at deadline 4. The draft SOCG with Essex County Council includes a matrix that makes reference to all the WCH bridges including Paynes Lane.

The Applicant confirms that some changes are proposed to the submitted drawings and dDCO drafting to facilitate further design development for the WCH bridges.

The Applicant has also had a considerable number of meetings with Network Rail over the last two years, with the most recent taking place on 31 March 2023. The focus of these conversations have been Network Rail's Business and Technical Clearance; The Framework Agreement, Protective Provisions, and the Third Party Asset Protection Agreement; maintenance access; Transfer of land from Countryside Zest to Network Rail as part of the proposed Beaulieu Park Station, interaction of the Bridge with the Beaulieu Park Station; signal sighting and, drainage and embankment stability. The Applicant will seek to agree compatibility with the proposed Beaulieu Park Station and resolve Network Rail's concerns on access and maintenance, signal sighting, Boreham Viaduct and existing infrastructure concerns including drainage and embankment stability

## 2.5.5

### **Examiner's Question to the Applicant and ECC**

As outlined at the CAH1 meeting and also in their subsequent submission, Essex County Council as landowner is reserving their position whilst further discussions took place. It is to be hoped that an agreement is reached, is this the case yet?

**Applicant's Response**

An e-mail was sent to Essex County Council on 24 January 2023 and copied to their agent inviting times and dates for a meeting to discuss acquisition by agreement. A response was not received. A further e-mail was sent on 21 March 2023 to the agent for Essex County Council confirming availability for a meeting to discuss matters in detail. A response was received on 22 March detailing that the agent had been confirming instructions and will revert once they had reviewed the application documents. The Applicant will continue to update the Examination on this matter as it progresses.

**2.5.6****Examiner's Question to the Applicant**

Mr Wacey spoke at the CAH1 meeting and has repeated his objection [REP3-078]. The Blight Notice has been accepted and it is therefore a question of the progress which can be made with the negotiations. Please confirm whether this has in fact been the case.

**Applicant's Response**

It is understood that Mr and Mrs Wacey have now appointed a surveyor to provide a valuation of the property and the Applicant's surveyor has had an initial discussion with the agent ahead of a claim being submitted. As soon as a claim is submitted the Applicant's surveyor will be instructed to progress negotiations. A claim is currently awaited to start this process.

**2.5.7****Examiner's Question to the Applicant and Mr and Mrs Lindsay**

A similar position exists with Mr and Mrs Lindsay. They spoke at the CAH1 [REP3-045]. The ExA visited their property during the ASI and it is hoped that the negotiations can progress speedily once Mr and Mrs Lindsay have instructed a surveyor. At the present time, is this objection still outstanding?

## Applicant's Response

Further to CAH1 and the ASI, the Applicant has met again with Mr and Mrs Lindsay. This meeting focussed on:

- Impacts during the construction phase (particularly the laydown area and haul route), and
- Process for applying for Discretionary Purchase.

It is understood that Mr and Mrs Lindsay prefer to stay in their home but are considering the submission of a discretionary purchase application. Once submitted it will be dealt with expeditiously by the Applicant and if accepted the Applicant's surveyor will make every effort to ensure that negotiations progress quickly.

However, the Applicant would mitigate appropriately any adverse impacts that are expected to occur so that they can continue to stay in their home throughout the construction phase.

- The Construction Compound Management Plan [APP-187] has been updated at Deadline 4 [Applicant Reference TR010060/APP/6.5 First Iteration Environmental Management Plan - Appendix C: Construction Compound Management Plan rev 2] to provide further details of typical measures that would be implemented. The Park Bridge Laydown area has been used as the typical example as it is near to Mr and Mrs Lindsay's property.
- Construction impacts associated with haul roads are managed through the existing Environmental Management Plan (EMP) [APP-184] and the appendices to it, together with plant crossings through the Outline Construction Management Plan (OCTMP) [REP2-003]. However, the Applicant will prepare an additional management plan as an appendix to the EMP, the Haul Road Management Plan [Applicant Reference 6.5 First Iteration Environmental Management Plan - Appendix O: Haul Road Management Plan [TR010060/EXAM/9.47]) to bring together in one document the control measures to manage noise, dust, traffic and plant crossings to mitigate impacts and deliver the works safely. This will be submitted at Deadline 4.

## 2.5.8

### Examiner's Question to the Applicant, BDC, WTC, ECC and Anglia Water Services

Concerning Special Category Land, the Applicant reported that progress was being made with the discussions with the various Councils. It is to be hoped that sufficient progress is made before the next group of hearings at the end of April so that this does not need to become an issue for consideration at the hearings. Please update.

### Applicant's Response

The Applicant has held site visits and meetings with Braintree District Council (BDC) and Witham Town Council (WTC) and has facilitated a meeting between these two authorities and Essex County Council to discuss how the replacement land across Witham could be co-ordinated to deliver the best uses for the community.

It is understood that all parties receiving replacement land are satisfied with the proposals. The Applicant is commencing detailed discussions, as part of the detailed design, to understand what hard and soft landscaping is required and details such as boundary fencing.

Whilst WTC were not happy with the proposed parcel of replacement land 9/1h, the Applicant has identified an alternative parcel. This was set out on site for WTC to inspect, and initial feedback is positive. It is anticipated that officers at WTC will confirm this to the ExA at Deadline 4, but subject to formal approval from the members. Subject to acceptance of the proposed change by the ExA, the Applicant would expect to formally propose the change at Deadline 6.

The Applicant believes that sufficient progress is being made with all parties that it should not need consideration at the hearings in April.

In addition to updating all the relevant Statements of Common Ground with regard replacement land, the Applicant would propose to submit a short statement at confirming progress at Deadline 6, ahead of the June hearings.

Whether or not the change application is accepted the recent change in ownership of some open space land moving from Braintree DC to WTC requires updates to the Applicant's Statement of Reasons Book of Reference and Replacement Land Statement, as well as to the Special Category Land Plans and Schedule 8 of the dDCO. The Special Category Land Plans, Book of Reference and dDCO have been updated and submitted for Deadline 4. The Applicant requires further time for the Replacement Land Statement and Statement of Reasons and will endeavour to provide updated versions of both documents before the next Compulsory Acquisition Hearing.

## 2.5.9

### **Examiner's Question to the Applicant**

The ExA queried the funding for the project at CAH1 in view of the concerns raised by the National Audit office. The Applicant indicated that an update would be provided at the next CAH. If this can be earlier, this would be appreciated.

### **Applicant's Response**

The Applicant continues to manage the Road Investment Strategy (RIS) portfolio proportionately and has undertaken prudent planning for inflationary risks at a portfolio level. The recent levels of inflation fell within the RIS portfolio parameters.

The Ministerial Statement on 9 March 2023 noted a couple of schemes that were to be deferred. However, this did not include the A12 Chelmsford to A120, which remains a committed scheme in the RIS.

## 2.5.10

### Examiner's Question to the Applicant

The Applicant confirmed that the consent from Crown Estates was a priority. Since this land is not subject to compulsory acquisition, the query is raised under land use but when is this consent likely to be available?

### Applicant's Response

The Applicant is progressing negotiations with the Crown Estate (TCE) and has been organising extensive monthly consultations with all disciplines in attendance. The most recent was a face to face workshop on 17 March 2023. We have exchanged Heads of Terms and are working through the principal outstanding issues which are in the Statement of Common Ground updated at Deadline 4 [Applicant Reference TR010060/EXAM/8.7 rev 2], and are summarised below:

- a) TCE's Feering East Junction configuration and associated utilities alignments. The Applicant and TCE are in discussion to see how the Applicant's proposed scheme can best accommodate a future junction on London Road.
- b) Land take at Domsey Brook, the Applicant is awaiting confirmation of TCE's preferred ditch and culvert drainage arrangement.
- c) Threshelfords Bridge – the parties are discussing the future uses that will be permitted over the bridge.
- d) Programme – The Applicant has supplied its programme information to TCE. The Applicant's scheme is more advanced than TCE's development, for which an outline planning application is expected at the end of 2023 or start of 2024.
- e) Drainage within land plan plots 15/8i and 15/8j - The Applicant is developing the detailed design to provide additional design details for the benefit of both parties.

The Applicant requested an update on when S135 consent would be forthcoming from the Crown Estate and remains confident it will be available before the end of examination.

The Applicant is in the process of negotiating commercial terms with TCE for the subject land.

## 2.5.11

### Examiner's Question to the Applicant

The indication is that the CA schedule will be updated at Deadline 4 (11 April 2023) and progress with the negotiations will be closely followed. Please update?

### Applicant's Response

The Applicant has provided an updated version of the CA schedule as part of its Deadline 4, submissions. This includes updates on the progress of the negotiations and objections.

## 2.5.12

### Examiner's Question to the Applicant and NFU

The NFU appeared at the CAH1 and whilst not an Affected Person, it was clear that they would represent a number of affected landowners. They have subsequently provided confirmation to this effect. They asked for the notice period in Article 40 to be extended to 28 days and it is acknowledged that this has been accepted as confirmed in REP3-014 at reference 22. There remains the issue [REP3- 071] of land ownership and returning the land even though environmental mitigation is required. The Applicant has responded (at para 24, [REP3 –014]). Can an appropriate legal mechanism be agreed which will adequately protect the Applicant?



### **Applicant's Response**

The Applicant explained in its Written Submission of Oral Case for Compulsory Acquisition Hearing REP3-014 that not owning the freehold of the land required for essential mitigation would expose the Applicant to the risk of criminal sanctions due to a breach of the DCO were any subsequent disposal to be made of the land or any management agreement breached. As explained in those written submissions, the Applicant's only remedy in such circumstances would be to seek to enforce the management agreement against the landowners in the civil courts, whilst itself facing criminal liability.

Criminal liability cannot be 'contracted out' or transferred by legal agreement and therefore it is the Applicant's view that there is no legal mechanism that would appropriately protect it from the potential criminal liability referred to.

### **2.5.13**

#### **Examiner's Question to the Legal and General Investment Management**

They had been due to speak at CAH1 but notified in advance that this would not be the case. Their solicitors reported [REP3-048] that progress had been made so please provide an update?

### **Applicant's Response**

N/A

### **2.5.14**

#### **Examiner's Question to the Applicant, Edmundson Electrical and Royal London**

This objection was outlined at CAH1 and the ExA spent some time during the ASI inspecting the site and also looking at the possible alternative routes which had been suggested. It is noted that a subsequent meeting between the parties was to take place on site on 08 March 2023 to discuss security and commercial impacts. Please can the parties update the ExA on these discussions.

## Applicant's Response

In addition to the preceding Teams meetings a site meeting took place on 8 March 2023 between the parties.

The Applicant has investigated access from the A12 mainline and the findings are:

- The Edmundson Electrical (EEL) site is in close proximity to the junction 19 northbound off-slip road and there is existing traffic signage within the northbound verge approximately 50m south of the start of the off-slip road.
- To install temporary traffic management to enable safe access and egress from the A12 mainline to the EEL site, the Applicant would need to install an entry point access at least 500m upstream from the EEL site. The reason for this is to mitigate against accidental incursion from road users as there is a heightened risk that the entry access point could be mistaken for the junction 19 northbound off-slip road. Additionally, all lanes on the A12 mainline would need to be reduced to narrow lanes (Lane 1 down to 3.25m and Lane 2 down to 2.75m), with a speed reduction to no greater than 50 mph.
- To allow safe egress of works vehicles the egress point would be required to be extended up the junction 19 northbound off-slip road. To enable this, the off-slip road would have to be reduced to a single lane to provide a safe egress point for the workforce. This would reduce the capacity of the junction which already suffers with congestion during both the AM and PM peak traffic hours.
- Due to the limited cross section available on the A12, the Applicant would need to harden the verge to enable an access road to the EEL site, this would be approximately 1km long and would require the importing of construction material and removal of the existing safety barrier and signage.
- All road markings would need to be adjusted on the A12 mainline.
- Removal of existing drainage would need to be considered and a temporary system installed.
- A temporary barrier system would need to be installed as the existing permanent assets would need to be removed, including the safety barrier.

Due to the above reasons, the Applicant does not deem access and egress from the A12 mainline to the utility diversion site as a reasonable or proportionate option.

The other feasible access to the gas installation would involve removing a bund located to the north of the EEL site on land owned by HSBC. The Applicant has previously rejected this option due to the environmental impacts from removing the trees and vegetation on the bund and the transport impacts. HGV movements would be required to remove the material from the earth bund off site and then to import materials to form a temporary roadway with an associated impact on the local roads in the estate. The transport activities would need to be repeated in reverse to reinstate the bund once the work is completed.

The security and parking concerns raised by the Interested Party were discussed at the meeting, in particular the working times of the business and the requirement to have three rigid delivery trucks parked in front of the palisade fence and locked at 15:00-16:00 on the proposed access way to the gas site, located to the north of EEL. The Applicant believes that a pragmatic solution can be found for these issues, which could involve the installation of additional gates in the palisade fence, additional security measures and/or temporary alternative parking for one of the lorries. The Applicant will continue to work closely with the Interested Party to find an agreeable solution.

Regarding the commercial impacts, the business operations were discussed in detail and the Applicant believes that, through implementing appropriate mitigation and liaising with the Interested Party, the impacts to business at this site are negligible.

The Applicant is working with Cadent to provide more detail on the access route which will be shared with the Interested Party as soon as it is available.

## 2.5.15

### Examiner's Question to the Applicant

The issue of the Borrow Pits received some attention at CAH1 and in particular the consideration of the position relating to the Coleman Farm Quarry. The response to one of the original objections was made at REP1-002 and a Supplementary Technical Note explained the position further [REP1-011]. The position concerning the Colemans Quarry needs to be better explained since its need for backfilling is uncertain (see APP-069, ES Chap 2 at 2.686; and RR027-15 and RR027-19). The difference would be significant as this involves a significant amount of material (although figures of 600,000 and 650,000 are separately given). Please can the Applicant give an explanation as to why Colemans Quarry needs this backfill; how likely is it that this will be required; and when will the position become clearer?

### Applicant's Response

Coleman's Farm Quarry lies directly under the footprint of the proposed junction 22 and A12 mainline embankments. Therefore, the quarry void requires backfilling with suitable material that provides a competent platform for the construction of the proposed scheme.

To reduce the impact of the proposed scheme on the quarry, the quarry operator has submitted a planning application to Essex County Council to vary its current quarry planning permission to revise the programme of working of material at the quarry. This would avoid the unnecessary sterilisation of minerals and reduce compensation that might otherwise be due to the quarry owner. This is described in more detail in Chapter 11 of the Environmental Statement: Material Assets and Waste [APP-078], sections 11.11.17 to 11.11.19.

To clarify the volume figures that have been separately given, the 600,000m<sup>3</sup> volume is the shortfall of general earthworks fill material for the construction of the proposed scheme embankments and earthworks operations discussed in the Borrow Pits Report [APP-278].

The volume of 650,000m<sup>3</sup> is the proposed quantity of contingency material to be imported, from external sources, in to backfill Coleman's Farm quarry, only in the case that the quarry operator does not timeously deliver the competent platform. Any reference to

these materials in the application materials are purely for contingency purposes.

The 650,000m<sup>3</sup> forms part of the total estimated volume of the quarry to be backfilled (950,000m<sup>3</sup>). These figures are first introduced in Chapter 6.1 Environmental Statement - Chapter 2: The Proposed Scheme [APP-069] paragraph 2.6.84. A further explanation clarifying the position on Colemans Farm Quarry is given in [REP3-014] ref 28.

Commercial terms between the Applicant and the quarry operator have been settled. The further planning applications mentioned above have been submitted by the quarry operator, to:

- reduce mineral sterilisation,
- create an inert waste collection facility,
- increase heavy goods vehicle movements associated with the quarry works to mitigate delays to the proposed scheme.

The intention is for the operator to commence the backfilling of the quarry as soon as possible by accepting inert waste, which meets a specification set by the Applicant to ensure the quarry can be backfilled to create a platform which is suitable for founding new road construction. The commercial arrangement also ensures that the Applicant can 'step in' and secure the proposed scheme construction schedule should the backfill operation not proceed as planned.

The Applicant has engaged successfully with the quarry operator to align the proposed A12 scheme schedule with the quarry operator's extraction and backfill schedule. However, to ensure that the proposed scheme can be delivered in all scenarios, the contingency material has been included in the assessment of the scheme's environmental impacts.

Regular monitoring of the backfilled void volume will be conducted in the lead up to start of construction. This enables the Applicant to determine the remaining backfill volume to be assessed against the time available to backfill the remaining void. The Applicant will then be able to 'step in', if necessary, to secure the delivery of the proposed scheme by importing from its secured source of fill material from proposed scheme borrow pits, and if necessary, use road import from external sources.

## 2.5.16

### Examiner's Question to the Applicant

Following from question 2.5.15, there does seem the opportunity of delivery of materials by rail especially as there are a number of nearby local stations with a rail route running roughly parallel with the A12. Has this option been fully explored?

### Applicant's Response

The option of importing general fill material by rail has been fully explored. Class 1 (granular) or Class 2 (cohesive) fill imported via rail heads has been investigated with the suppliers mentioned in the Borrow Pits Supplementary Technical Note [REP1-011]. The issues associated with this are:

- the type of the material which is being loaded onto the trains.
- the source of material to be loaded onto the trains.

There are two existing rail heads local to the proposed scheme, at Chelmsford and at Marks Tey. These rail heads are operated by national aggregate suppliers who have confirmed that they are purposed for supplying primary aggregates to support their core operations and the local market requirements. This is evidenced, in part, in the Borrow Pits Supplementary Technical Note [REP1-011] Table 4.1.

The Applicant has engaged with the supply chain including for import of materials through rail heads. All options from the supply chain via rail heads (and sea ports) is of a granular engineering material nature (Class 6 or higher performing aggregates). As such, rail heads may feature in the import of these higher performing materials to the proposed scheme where appropriate, as described in the Borrow Pits Report [APP-278] paragraph 1.1.4.

### **Type of material**

Cohesive (Class 2) materials are preferred by the Applicant for use on the proposed scheme, as outlined in the Borrow Pits Supplementary Technical Note [REP1-011] paragraph 4.6.4, because they are lesser cost than granular materials. The use of higher quality virgin quarried aggregates would also be inappropriate where alternative lower specification materials could be sourced.

The suppliers are not in favour of transporting cohesive materials via train because of the cross-contamination of material that results when switching between the transport of 'clean' aggregates versus cohesive materials.

### **Source of Material**

The most efficient source of Class 1 or 2 general fill material would be from a quarry with its own rail head. Whilst seemingly possible, this option has not been offered as a solution from any of the suppliers operating the local rail heads. This would mean that the Class 1 or 2 material source would have to be transported from another source location, most likely by road, double handled from road wagon to rail wagon at a rail head, which would then be transported by rail to the Chelmsford/Marks Tey rail head and then double handled again back onto road wagons for import into the proposed scheme. As well as the increased transportation distances the 'triple handling' may negatively affect the quality of the materials.

The cost impact, transportation distance, effective triple handling and carbon generation associated with this activity is higher than the sources investigated in the Borrow Pits Supplementary Technical Note [REP1-011], which therefore concludes the use of railheads for general fill is unviable.

The construction of a temporary rail head within the locale of the proposed scheme, say at or near Borrow Pit E or Borrow Pit I which are adjacent to the railway, solely for the purposes of this proposed scheme would be vastly more expensive than the options considered in the Borrow Pits Supplementary Technical Note [REP1-011]. Additionally, it does not remove the issues described above regarding the source of the general fill materials, nor the transport and double handling at the source end of the journey and as such is not considered to be a viable option.

## 2.5.17

### Examiner's Question to the Applicant

As noted in the Borrow Pits Cost Information [REP3-023], a request was made in CAH1 for additional detail. This has been provided [REP3-023] but has been heavily redacted as it apparently contains commercially sensitive information. The Applicant is a public sector organisation and is under a duty to make information available on request. Please provide a considered explanation as to why this information falls within one of the exceptions to disclosure as the reason for the removal of this information suggested at paragraph 1.1.2 of REP3-023 is very limited.

### Applicant's Response

National Highways is a public authority for the purposes of the Freedom of Information Act 2000 (FOIA) and is therefore under a duty to confirm whether or not it holds certain information if asked. However, the FOIA sets out exceptions to the general principle of disclosing the actual information. Public authorities are exempted from making certain information publicly available to the public, as. These exemptions are set out in Section 43 of the FOIA.

The information redacted from the Borrow Pits Cost Information [REP3-023] falls within Section 43(2) of the FOIA which provides an exemption from disclosure where such disclosure would, or would be likely to, prejudice the commercial interests of any legal person.

As set out in paragraph 1.1.2 of this document, the cost spreadsheet prepared, informing the borrow pits assessment, contains information that is commercially sensitive for the Applicant, its delivery partner and their supply chain, particularly in relation to the base product or resource rates.

As discussed in para 1.1.5 of the Borrow Pits Cost Information [REP3-023] the order of magnitude exercise has been compiled with commercially sensitive material rates costed specifically for the proposed scheme, supplied from the market to best reflect the current market situation and any benefits that can be gained from using local suppliers, as opposed to using standard published rates in publicly



available literature.

As not all suppliers have given consent to the release of the costings, the Applicant has sought to protect their commercial position and identity in their contribution to the cost information work, therefore all the commercially sensitive material supply base rates used has had to be redacted, along with any information which could be used to calculate those rates.

Despite the necessary redaction, the spreadsheet provides value by demonstrating what factors have been considered between the different sourcing options in the cost build up. For example, Table 4.3 General Fill Material Rates Worksheet shows several method related, land associated and statutory undertaker costs incurred by using borrow pits for the proposed scheme. These costs would not be incurred for those options that instead rely on sourcing general fill material from the market or other local sources, such as other construction projects.

## 2.5.18

### Examiner's Question to the Applicant

In the reply to question 5.0.6 in the ExQ1 [REP2-025], the Applicant suggests that there is an "overwhelming justification for expropriation powers to be sought." Does the Applicant accept that this is a matter of opinion, and it is for the Secretary of State to reach a decision having heard the recommendation from the ExA?

### Applicant's Response

The response at ExQ1 is the Applicant's submission regarding the compelling case for compulsory powers.

It is for the Secretary of State to decide whether or not to confer the powers sought, having regard for the evidence and submissions before the Secretary of State and the recommendations of the Examining Authority.

## 2.5.19

### Examiner's Question to the Applicant

Mr Mahoney at the CAH1 raised the issue of Temporary Possession for a footbridge over his land whilst a permanent bridge was being constructed. In the response to the hearing [REP3-014], the Applicant has indicated that they will be preparing a position statement to confirm what has been offered and agreed with Mr Mahoney. When will this be available?

### Applicant's Response

The Applicant has discussed a draft position statement with Mr Mahoney to collate all the concerns raised to date. The Applicant has documented this and provided draft responses, and this has been made available for Mr Mahoney to review.

## 6. Draft Development Consent Order (dDCO)

### 2.6.1

#### Examiner's Question

No further questions at this stage.

#### Applicant's Response

N/A

## 7. Gas Pipeline Diversion

### 2.7.1

#### Examiner's Question to the Applicant

During the ASI the ExA observed the ecological value of the Blue Mills Nature Reserve and adjoining Ancient Woodland. Please summarise: • the alternative options considered which would avoid or mitigate the impacts of routing the pipeline diversion through the nature reserve; and • justify the reasons why each option has been discounted.

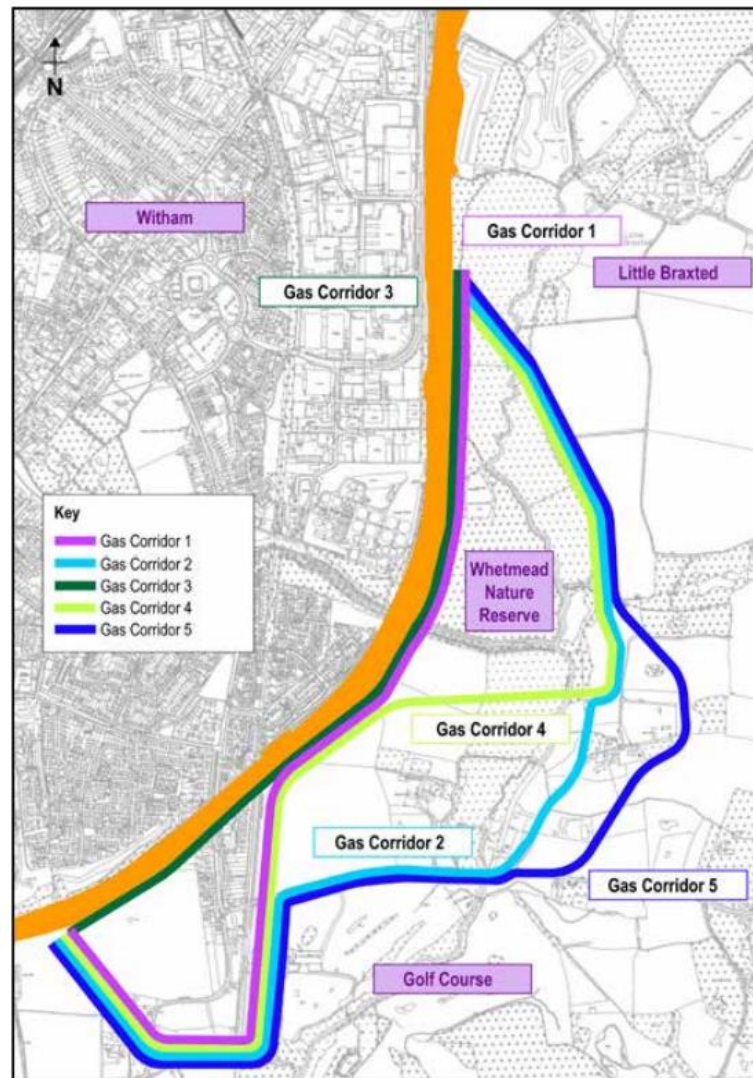
#### Applicant's Response

##### Alternative options considered

It was established that the gas main would need diverting as a result of the proposed scheme works, and corridor options were identified that:

- Run parallel and adjacent to the existing pipeline and A12
- Avoid the residential properties on Maldon Road
- Avoid the Whetmead Nature Reserve, which was created on top of a historical landfill

During the Supplementary Consultation in November 2021, as well as the plans showing the corridors, an illustrative sketch of the corridors was included on page 23 of the consultation brochure [APP-057] which is copied below for ease of reference.



Potential route corridors identified for diversion

The Supplementary Consultation: Environmental Report (available on the National Highways website) included an environmental assessment of the alternative corridors. This has been submitted at Deadline 4 [Applicant Reference TR010060/EXAM/9.46].

The options for the gas main diversion, as well as the reasons they were discounted, are discussed in Table 3.5 of Environmental Statement Chapter 3: Assessment of alternatives [APP-070]. The options that were considered were:

- Corridor 1 – Diverts south-east, away from the A12 and around Maldon Road and then travels back north-east to follow the existing A12.
- Corridor 2 – Diverts south-east, away from the A12 and around Maldon Road and then travels further east along Blue Mills Hill where it crosses the River Blackwater. It then travels north-east along Ishams Chase to divert around Whetmead Local Nature Reserve (LNR), avoiding the potential contaminated land, before continuing north towards the A12.
- Corridor 3 – Follows as closely as possible to the existing A12 mainline.
- Corridor 4 – Diverts south-east, away from the A12 and around Maldon Road and then returns north-east to run alongside the existing A12 mainline before diverting east away from the A12 again, crossing the River Blackwater to go around Whetmead LNR, avoiding the potential contaminated land, before continuing north towards the A12.
- Corridor 5 - Diverts south-east, away from the A12 and around Maldon Road and then travels further east than Corridor 2 to divert around the residential properties along Ishams Chase and Whetmead LNR, avoiding the potential contaminated land, before continuing north towards the A12.

### **Reasons each option has been discounted**

Corridors 1 and 3 involve diverting the gas main through the historic landfill at Whetmead Local Nature Reserve. There would be issues around safety during construction and long-term serviceability of the asset associated with placing a new asset in the potentially contaminated ground, which were assessed not to be acceptable.

Corridors 1 and 3 would have challenges associated with excavating through substantial depths of landfill, with Ground Investigation proving up to 13m of landfill deposits. This would have required very deep excavations to install the gas main, with significant health and safety considerations (such as stability of excavations and ground gas control) and considerable cost implications (current Environment Agency position does not allow reuse of landfill deposits, so disposal may have been required for excavated landfill materials). In addition, if directional drilling was used to install the gas main, the presence of landfill may mean that significant obstructions may be encountered. The deep excavations would involve substantial disturbance of the Whetmead Nature Reserve.

To mitigate against these risks it may be practicable to remediate the landfill area to create a suitable medium for the gas main to be installed into. This would involve excavation of the existing material and transporting to a new landfill, creating an impermeable barrier whilst mitigating the risks of potential gas build up, then backfilling with a suitable material. To enable safe construction, and subsequent maintenance, it may be necessary for the full width of the construction corridor to be remediated.

If the full construction corridor width were to be remediated in this way, however, this would require approximately 12,000-14,000 HGV movements. These would likely need to be via Maldon Road and the local road network, as the temporary works to create access/egress directly to the A12 would itself require a significant import of material, and may not be feasible with the configuration of traffic on the A12 ahead of the southbound widening. It would be necessary to complete these works early in the programme, to enable the southbound A12 widening. This level of vehicle movements would not be acceptable on Maldon Road.

Corridors 1 and 3 were therefore discounted.

Strong feedback during the supplementary consultation on Corridors 2 and 5 was received on the impacts of these route options from local residents and councillors. These corridors would result in the loss of trees and hedgerows that line Blue Mills Hill and Ishams Chase, impacting the landscape character of these areas and potentially impacting on the setting of listed buildings. There would also be disruption to residents during construction as maintaining access to properties, while aiming to reduce tree loss, would be problematic.

Corridors 2 and 5 were therefore discounted.

Corridor 4 was chosen as the preferred option. Although this option would result in loss of woodland where it crosses the River Blackwater, the route of the corridor has been altered since the supplementary consultation to avoid woodland on the east bank of the River Blackwater, therefore reducing tree loss. This option also avoids the landfill and Local Nature Reserve at Whetmead, and properties along Blue Mills Hill and Ishams Chase.

The Examining Authority refers to ancient woodland. Ancient woodland is defined by the Woodland Trust as areas of woodland that have persisted since 1600 AD in England. No ancient woodland is recorded on the Ancient Woodland Inventory for this location. There is also no mention of ancient woodland within the citation for Blue Mills Local Wildlife Site, nor have Essex Wildlife Trust raised ancient woodland as a concern within their response to the statutory consultation or any representation made during the examination. 'A Map of the County of Essex' (Chapman and Andre, 1777) does not show any woodland within the gas diversion corridor, which suggests the woodland at Blue Mills has not been continuous since 1600 AD and therefore would not qualify as ancient woodland, albeit it does show other woodlands such as Chantry Wood to the east.

## 8. Geology and Soils

### 2.8.1

#### Examiner's Question

No further questions at this stage.

#### Applicant's Response

N/A

## 9. Good Design

### 2.9.1

#### Examiner's Question

No further questions at this stage.

#### Applicant's Response

N/A

## 10. Health

### 2.10.1

#### Examiner's Question to the Applicant

In response to the submission from UK Health Security Agency (RR-028), reference is made by the Applicant [REP1-002] to continuing to work with the Interested Party to agree a strategy and assessment to address their concerns. Please can the Applicant update the ExA on the progress of this work and confirm whether this will be submitted to the Examination or whether it will form part of the detailed design stage. If it is the latter, please can the Applicant provide an indication of the likely details that will be included to address the issue, along with how this would be delivered and agreed.

#### Applicant's Response

In design development to date, the potential for suicide risk on the new and/or amended sections and structures of A12 has been considered. This included requesting available data from National Highways, Essex County Council and Police contacts to understand



the local suicide risk and how this might be mitigated through scheme design, for example through design of bridge parapets and connecting elements.

This work is primarily a detailed design task and will be revisited during the current Detailed Design scope and will include liaison with National Highways and other Interested Parties to gather current information to inform that assessment and design. To support this liaison efficiently, the Applicant will contact specific individuals at UKHSA/OHID with whom the assessment would be discussed and will consult with them during the assessment within the detailed design stage to ensure that opportunities are taken in the scheme design to minimise the likelihood of attempts at suicide and to minimise the potential for harm should an attempt be made.

## 11. Historic Environment

### 2.11.1

#### Examiner's Question to the Applicant

Concern was raised by Essex County Council at ISH1 over the impact on Palaeolithic remains as the initial report did not cover the entire scheme. A request was made for full coverage of the impacts on such remains and this is awaited. The Applicant [REP3-012] explains that it is in the process of undertaking additional desktop and digital work to determine the extent of this resource across the area of construction impact. Can the Applicant confirm the timescales applicable to this work?

#### Applicant's Response

As explained in the Applicant's response to Essex County Council at ISH1 [REP3-012], the Palaeolithic Desk-Based Assessment [APP-108] was designed to answer specific questions about areas of higher potential for in situ Palaeolithic remains to be present in locations where elements of the proposed scheme such as borrow pits would be most likely to have an impact on deposits that are normally more deeply buried than the remains of more recent archaeological periods. The Desk-Based Assessment drew on the same sources of information as those used to inform pre-existing studies of the Pleistocene deposits of the region such as the Historic England funded study "Managing the Essex Pleistocene" (2015), and the areas of higher potential identified in both reports are consistent. The Applicant considers the coverage and findings of the Palaeolithic Desk-Based Assessment Report [APP-108] to be sufficient for this purpose and

does not consider that this stage of work needs to be supplemented.

The Palaeolithic and Palaeoenvironmental Evaluation Reports [APP-115; APP-116] build upon the Desk-Based Assessment [APP-108] and provide a more detailed understanding of the deposits within the whole of the Order Limits, informed by a targeted programme of invasive and non-invasive fieldwork supplemented by the results of geotechnical investigations undertaken for engineering purposes, the design of which was informed by consultation with the heritage stakeholders. These studies have enhanced the understanding of the Palaeolithic and palaeoenvironmental potential of the Order Limits, including refining our understanding of the high potential lakeside deposits in the vicinity of Coleman's Quarry, Rivenhall End.

To address concerns raised by the Interested Party, the Applicant has engaged a specialist with extensive experience of Palaeolithic archaeology to review the existing reports and re-analyse the supporting data with the intention of submitting a supplementary report addressing the comments raised by Essex County Council. It is anticipated that the results of this work will be submitted for examination at Deadline 5.

The Applicant is continuing to engage with Essex County Council to resolve these and other outstanding issues through the statement of common ground.

## **2.11.2**

### **Examiner's Question to the Applicant and Andrew Watson**

A representation was originally made concerning the 17th century Grade II Listed Building on the B1023 Inworth Road [RR-075]. This party spoke at the Open Floor Hearing but not at the CAH1 although the property was included in the sites for the ASI. Please update the ExA.

## Applicant's Response

### Heritage

The Applicant is aware of the designated status of the Interested Party's home, and it was included as Asset 715 in the baseline for assessment in the Environmental Statement (see Appendix 7.1: Cultural Heritage Gazetteer [APP-106]). Asset 715 was assessed to be of high value, and an impact of minor magnitude leading to an adverse effect of slight significance was assessed during construction and operation of the proposed scheme. This was presented in Appendix 7.9: Cultural Heritage Impact Assessment Summary Tables [APP-117].

### Noise and Vibration

A response has been provided within REP1-002 to the representation made in RR-075. A further response has been provided within the Deadline 3 submission – Applicant's comments on written representations [REP3-009] to the representation raised by the Interested Party within REP2-036-003. The Applicant has continued to engage with the Interested Party on this issue.

### Health

The Applicant has no update regarding health effects since its response to RR-075 [REP1-002]

## 2.11.3

### Examiner's Question to the Applicant and HE

The representation from HE [REP2-060] counters the assessment made by the Applicant on the significance of the scheduled monument at Appleford Farm, Rivenhall End. HE considers that the proposed construction works would result in a substantial change in the context of the monument. Can the Applicant re-appraise the impact on the monument as suggested by HE at their paragraph 5.3.8? Can further mitigation be provided in order to reduce the level of harm to the designated heritage asset?

## Applicant's Response

The Applicant has responded to the Interested Party's comments in the Deadline 3 Submission - Applicant's Comments on Written Representations [REP3-009, sub-question REP2-060-006] and has revised the assessment of the effect of the proposed scheme on the Neolithic long mortuary enclosure scheduled monument (Asset 399) at Appleford Farm, Rivenhall End. In so doing, the assessments for the construction and the operational phases were revised from no change in impact magnitude on a high value asset (leading to a neutral significance) to a minor impact magnitude and slight adverse significance (not significant). The Applicant does not propose to revise its assessment further.

Given that the scheduled monument lies outside the Order limits about c330m from the mainline of the proposed scheme and is predicted to suffer no significant effects during construction or operation, no specific mitigation measures are proposed or considered to be required.

Extensive mitigation has been proposed as part of the proposed scheme to benefit sensitive receptors within the Order Limits, including retention of existing vegetation, grass verges planted with hedgerows and individual trees, as well as the planting proposed around the attenuation pond and ecological mitigation, use of a road surface with better noise reducing properties than a conventional low noise road surface, and the use of light-emitting diode luminaires designed to reduce light spill into adjacent areas. The Applicant considers that these mitigation measures will also benefit the setting of the scheduled monument.

The Applicant is continuing to engage with Historic England to explore other opportunities to enhance the heritage value of the Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End through the Statement of Common Ground.

## 2.11.4

### Examiner's Question to the Applicant and HE

HE has also raised concerns as to the other scheduled monument along the proposed A12 route, being the Medieval moat at Marks Tey Hall. They have suggested an updated assessment taking into account their comments, but the Applicant has responded from page 190 of REP3-009. Can HE comment on this? Again, is it possible for the Applicant to provide additional mitigation which might ease the concerns of HE?

### Applicant's Response

The Applicant provided a further assessment of this heritage asset for discussion [REP3-009] in response to Historic England's sub-question [REP2-060-007] and has decided not to change the assessment.

The medieval moat at Marks Tey Hall (Asset 818) is located approximately 90m south-east of the Order Limits, 280m from the closest part of the proposed new highway mainline, and 200m from the end of the realigned section of Hall Chase.

Extensive mitigation has been proposed as part of the proposed scheme to benefit sensitive receptors within the Order Limits, including retention of existing vegetation, additional woodland planting, the provision of an acoustic bund, use of a road surface with better noise reducing properties than a conventional low noise road surface, and the use of light-emitting diode luminaires designed to reduce light spill into adjacent areas. The Applicant considers that these mitigation measures will also benefit the setting of the Medieval moat at Marks Tey Hall and that consequently no further mitigation measures are required.

However, the Applicant is continuing to engage with Historic England to explore other opportunities to enhance the heritage value of the scheduled monument and associated listed buildings through the Statement of Common Ground [REP2-009].

## 2.11.5

### Examiner's Question to HE

It is noted that a number of heritage assets (reference is made to 4 Grade I and 20 Grade II\* listed buildings) might be affected by groundwater conditions. The Applicant proposes further assessment should be carried out as soon as possible and provided for the Examination. Can HE comment on the Applicant's response to its Written Representation [REP3-009] on this point?

### Applicant's Response

'Further to the Applicant's response to Historic England's written representation, sub-question 6, relating to the Groundwater Assessment in Appendix 14.4. of the Environmental Statement [APP-161], the Applicant continues to consult with Historic England, the Applicant has been undertaking further consultation with Historic England on the matter of the further assessment of groundwater impacts, most recently on 16th March 2023.

Consultation has been constructive, and the Applicant expects to be able to come to an agreement on the details of the further groundwater assessment, the outcomes expected by Historic England and any mitigation measures that may be required.

## 2.11.6

### Examiner's Question to the Applicant

HE has also commented at paragraph 7.3 of REP2-060 that the Applicant provide a timetable of the areas that have not been investigated by the geophysical survey? Please confirm that submission of the results of the additional geophysical survey will be sent to the LPA and HE for approval and thereafter how this would be secured through the dDCO?

### Applicant's Response

The Applicant responded to the recommendation made by Historic England in paragraph 7.3 of REP2-060 in the Deadline 3 Submission - Applicant's Comments on Written Representations [REP3-009, sub-question REP2-060-009], and has committed to provide a drawing

showing evaluation coverage of the Order Limits, including geophysical survey, to be submitted for examination in due course [REP3-009, sub-question REP2-060-013].

The Applicant notes that Historic England has recognised in their written representation that the remit for detailed comment and advice on non-designated archaeological remains lies with the relevant Local Authority Archaeological Advisors. The Local Authority Archaeological Advisors have agreed that the evaluation, including geophysical survey, was undertaken to their satisfaction, and that where intrusive evaluation was not carried out, measures have been included in the mitigation proposals for further work (Paragraphs 9.7.9, 9.7.10, and 9.7.18 of Essex County Council's Local Impact Report [REP2-055]). Taking this into account, the Applicant does not intend to conduct further geophysical surveys in addition to the proposed works set out in the Archaeological Mitigation Strategy [APP-118].

With specific reference to Historic England's recommendation in paragraphs 7.4 and 7.5 of REP2-060 that the area of the Order Limits closest to the scheduled Neolithic long mortuary enclosure at Appleford Farm, Rivenhall End (NHLE 1008980; Asset 399) be subject to geophysical survey; subsequent discussion with Historic England on 16 March 2023 arrived at the option of carrying out either a geophysical survey in this area, or strip map and sample excavation as part of the planned archaeological mitigation works, to ensure any potential remains in this area are identified, recorded and fully understood. Strip map and sample excavation has been agreed with Essex County Council in their role as consultee on non-designated archaeological remains and will be included in the revised Appendix 7.10: Archaeological Mitigation Strategy to be submitted in due course, and the subsequent Written Scheme of Investigation which will be secured through Commitment CH2 of the Register of Environmental Actions and Commitments [APP-185].

## 2.11.7

### **Examiner's Question to the Applicant and MDC**

Maldon District Council expressed a concern at the ISH1 over the impact on the Grade 1 Listed church of St Nicholas. The Applicant has stated at para 84, REP3-012 that the impact on the church would be neutral. Does the Council have any further comment on this?

### Applicant's Response

During the construction phase, no impacts are expected on the church on Little Braxted Lane. Little Braxted Lane is shown on the Outline Construction Traffic Management Plan Appendix B [REP2-004] Sheet 10 as an excluded route. The Applicant can confirm that this extends south to the junction of Little Braxted Lane with Lea Lane, and therefore past the church. Therefore no construction HGVs would be using the road past the church, and therefore there would be no impacts to the setting of the church'

The Applicant looks forward to receiving further information from the council in due course and will discuss this with them further at our next arranged meeting on 18 April 2023.

### 2.11.8

#### Examiner's Question to Messing and Inworth Parish Council

Concerns were raised in relation to the impacts on the Messing village Conservation Area. The Applicant responded to these at para 88, REP3-012. Does the Council wish to make any further representation concerning the Conservation Area?

### Applicant's Response

N/A

## 12. Landscape and visual

### 2.12.1

#### Examiner's Question

No further questions at this stage.



## Applicant's Response

N/A

## 13. Land Use

### 2.13.1

#### Examiner's Question to the Applicant

The ExA visited the site of Coleman's Cottage Fishery at Little Braxted during the ASI. Photographs of the scene have been submitted at REP3-079. This was also raised by the Essex Local Access Forum [REP3-037]. The possibility was raised of the proposed footpath being moved. Is there any progress with this?

#### Applicant's Response

The Applicant is proposing to extinguish the right of way for pedestrians along Footpath 121\_103 across the A12 between i/a and i/b as shown on the Streets, Rights of Way and Access Plans – Part 2 [AS-028], at the north-west corner of Coleman's Cottage Fishery towards north Witham; as well as removing the existing steps and central barrier gap. To facilitate the proposed scheme's operational concept pedestrians along with other classes of road user as described in DMRB GD300, are proposed to be banned from the A12 between junction 21 and junction 25.

The Applicant has considered its obligations under the Planning Act 2008 with regards to public rights of way and has proposed the link from the south of the A12 to Little Braxted Lane leading to Little Braxted Lane Bridge as the most reasonable alternative provision for this extant right of way.

The suggestion from Essex Local Access Forum to route the footpath south towards Brain Bridge would be a significant diversion for this route. The intention of the proposed intervention is to provide a suitable diversion for the public right of way and a diversion north to

the proposed new Little Braxted Bridge provides a shorter route to Freebournes Road than a diversion south to Brain Bridge, Blackwater Lane, Maldon Road and Pasture Road.

The Applicant is working to minimise the land required for the A12 widening in this area. No additional acquisition of permanent title is required to dedicate this proposed footpath as this area is already included as land proposed to be acquired compulsorily to provide a safe ongoing maintenance route for the significant earthworks required for the A12 widening.

The Applicant also appreciates that Little Braxted Lane Bridge provides the most direct replacement for the extinguished Footpath 121\_103 crossing of the A12 to reach Freebournes Road for walkers originating from Little Braxted Lane itself, but the proposed link parallel to the A12 offers a circular route via the Whetmead nature reserve and does not leave Footpath 121\_103 as a dead-end.

## 2.13.2

### Examiner's Question to the Applicant

A specific note concerning the Gershwin Boulevard Bridge has been lodged at REP3-011. This includes a plan, photographs and consideration of an alternative siting. Mr Keith Lomax spoke at the hearing and has lodged a representation at REP3-046. Does the Applicant wish to provide any additional information in response to this?

### Applicant's Response

The Applicant is proposing to divert the right of way for pedestrians between footpath 121\_95 either side of the A12. Currently, by its virtue of being highway maintainable at public expense with no specific traffic regulation orders banning pedestrians, and not being a special road, crossing the A12 at this location is permitted.

To facilitate the widening of the A12 in this location, the existing steps and central reserve barrier gap are proposed to be removed and a length of PROW 121\_95 would need to be extinguished. To facilitate the proposed scheme's operational concept, pedestrians along with other classes of road user as described in DMRB GD300, are proposed to be banned from the A12 between J21 and J25. The applicant

has also considered its obligations under the Planning Act 2008 with regards to public rights of way and has proposed the position of Gershwin Boulevard bridge as the most reasonable alternative provision for this extant right of way. It is appreciated that the construction of the A12 acts as a physical if not currently legal barrier for walking routes in this area, and the proposed alternative route as shown seeks to rectify this historic severance.

Objectives for the proposed scheme, as set out in Environment Statement – Chapter 2: The Proposed Scheme [APP-069] include:

- Proposed scheme reduces the impact of severance of communities along the route
- Proposed scheme improves accessibility for walkers, cyclists, horse riders, and public transport users

Due to the nature of the proposed scheme the standards for its design require that pedestrians are prohibited from the altered A12. This would effectively confirm the current practical severance of the existing right of way due to the volume of traffic and the safety concerns for anybody trying to use the current legally permissible route.

### **The proposed bridge**

The term WCH, short for Walkers, Cyclists and Horse Riders is a generic term that refers typically to non-motorised users. The description of a route, or structure, being 'WCH' does not necessarily mean that it will be designated for use by all of those user groups. In this case it would be designated for use by pedestrians.

For the majority of WCH structures provided as part of the proposed scheme, including at Gershwin Boulevard, the structure itself would be designed so that the legal status of the route could be upgraded to carry a cycle path. This would be a matter for the local highway authority, should they wish to change the status of the existing public right of way leading to the proposed Gershwin Boulevard Bridge at some point in the future.

### **Views of the bridge**

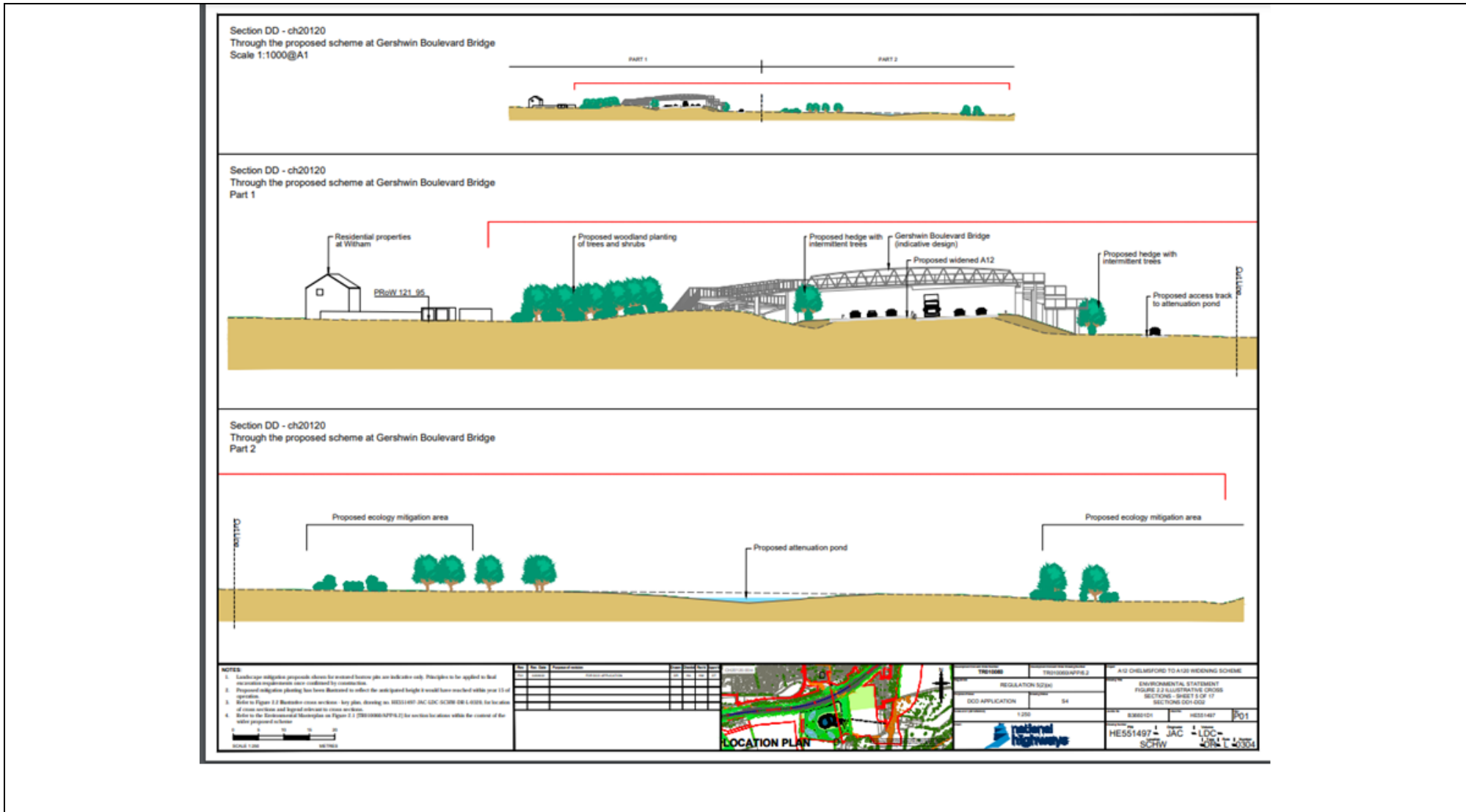
The Applicant acknowledges that some residents will have views of structure however, from the nearest part of the structure:

- For Oliver's Drive residents there is approximately 50m to the nearest window
- For Maldon Road residents there is over 130m to the rears of the gardens and in excess of 150m to the houses.

The proposed Gershwin Boulevard Bridge is assessed as having a very large adverse visual effect on the representative viewpoints presented in REP3-011 during construction and in year 1. At year 15 when mitigation planting has established this would reduce to a moderate adverse visual effect.

Mitigation planting is shown on Figure 2.1 Environmental Masterplan Part 1 Sheet 8 [APP-086] and Figure 2.2 Illustrative Cross Sections Part 1 Sheet 5 Section D-D [APP-089] of the Environmental Statement. Illustrative Cross Section DD shows the relationship between residential properties in Witham and the proposed Gershwin Boulevard bridge and proposed planting. During detailed design the inclusion of evergreen species, larger stock and fast-growing species would be considered to provide early establishment and screening.

It can also be seen from Cross Section D-D, that the A12 is in a slight cutting on the northbound side and that there is an existing bund adjacent to the A12. These two features reduce the required height, and therefore length and overall size, of the approach ramps required to cross the A12 with sufficient clearance. This in turn reduces the visibility of the structure and enables the landscape planting to establish and provide the desired design year mitigation sooner.



### **Access to open space**

With the proposed open space to the south of the A12, the siting of the Gershwin Boulevard bridge in the Applicant's proposed location would create a route directly to this new area.

Although a small area (Approximately 0.35ha) of the existing open space to the north of the A12 would be required to construct and mitigate the proposed bridge, the route that it creates provides access to a much larger area of open space (approximately 2.1ha).

### **Onward journeys south of the A12 – Applicant's proposal**

The Applicant's proposal would connect the two sections of Footpath 121\_95, on either side of the A12, the eastern section of which links to Maldon Road. There would be a short on-road section (approximately 200m) of the route that connects to the ongoing Public Rights of Way network to the left of the entrance to Oliver's Nurseries.

The section of Maldon Road of on-road walking has narrow verges. This is an existing issue for the local highway authority. To provide an enhanced provision for users of Maldon Road on foot would require land from the residential and business properties adjacent to Maldon Road. The Applicant does not believe it would have a compelling case to seek powers compulsorily as the issue is an existing one and is not required mitigation for the A12 scheme.

The Applicant's proposal does enable onward journeys to Maldon Road via the replacement land that would be Open Space for Braintree District Council. The bridge would land adjacent to the open space, enabling direct access to the open space. The Applicant has intentionally connected the replacement land to Maldon Road near to Oliver's Bridge so it both replaces the lost open space, but also facilitates ongoing journeys.

Ongoing journeys could either return to the north of the A12, or onwards via Blue Mills Hill to the Rail Trail, via the Essex County Council replacement land to the River Walk or into the Whetmead Nature Reserve.

### **Onward journeys south of the A12 – Alternative proposal**

The Alternative proposal would connect to Howbridge Hall Road, which is public highway and a permissive footpath. Two potential onward routes from the junction with Howbridge Hall Road and Maldon Road could be considered. Either:

- East along Maldon Road for approximately 300m to the entrance to Oliver's Nurseries
- South along Maldon Road for approximately 350m to the entrance to James Cooke Woods, which is publicly accessible and abuts the PRow network.

Both these routes have similar issues to the route associated with the Applicant's proposal, ie, narrow verges and poor visibility at the bends for crossing the road. However, these are not existing issues, and would be as a direct consequence of siting the bridge at the alternative location and the increased use of Howbridge Hall Road by users on foot. Should the bridge location be at the alternative location, the mitigation to reduce the new safety risk of walking along Maldon Road would be required. The Applicant does not believe it shows a compelling case for compulsory acquisition, as the Applicant's proposal does provide a safe onward journey via Maldon Road, as a suitable and reasonable diversion for the existing public right of way 121-95.

### **Summary**

Whilst many of the aspects and impacts for the Applicant's location of the bridge and the alternative are broadly similar, the Applicant does not believe it can deliver the alternative, nor should it be required to do so.

This is because the alternative proposal:

- Cannot now be delivered within the programme for the scheme as land outside of the current order limits would be required to deliver the alternative proposal
- The alternative proposal does not create a route to the proposed Replacement Land south of the A12

**The Applicant's proposal:**

- Can be adequately mitigated in terms of its potentially significant impacts, such as visual impacts on properties in Oliver's Drive
- Can be delivered within the scheme programme
- Provides appropriate connectivity with the wider rights of way network and also to the proposed replacement land and Maldon Road.

**2.13.3****Examiner's Question to the Applicant**

The severance of Prested Hall drive and the nearby Feering Footpath 15 by the new A12 route has been raised again at REP3-078. An additional bridge for walkers, cyclists and horses has been suggested by the Essex Local Access Forum as mitigation which would improve connectivity. Has this been fully considered by the Applicant? The same point has been raised by Feering Parish Council [REP3-041].

**Applicant's Response**

The proposed scheme improves the network in this location, as shown on the Streets Rights of Way and Access Plans – Part 2 [AS-028], for walkers cyclists and horses via:

- the realigned Prested Hall Access Road, via Prested Hall Overbridge – this is a quiet road with a dedicated walking/cycling route alongside. This is an improvement on the existing route, which has no walking or cycling facilities so users must walk in the road or on the grass verge. Ridden horses could use this road although there are no connecting bridleways or public roads so it is likely that equestrian use would be extremely low. This realigned access road bypasses junction 24 of A12, which pedestrians must use at present and where no cycle provision is present.



- Connections with the above route to proposed Feering East roundabout – including a cycle/pedestrian route segregated from the road connecting to both sides of A12 leading east and to New Lane leading to Hanover Square.
- Footpath 15 would connect to a new footpath to the east of the A12 connecting to the former Easthorpe Road and from there to Easthorpe or over A12 at Easthorpe Road Overbridge to Dombey Chase and footpaths 3, 5 and 7 to the west of the existing A12.

The routes described above represent a substantial improvement in this area for utility or leisure use.

An additional bridge might improve connectivity but would only be justified if it were located where likely use were sufficient to justify the substantial additional cost. Where utility journeys – for example between homes and places of education, employment, and services – are accommodated, the benefit is more relevant than leisure use. This is because travel time is a major factor in encouraging utility journeys by walking and wheeling modes.

A bridge to the east of Prested Hall Overbridge – for example on the alignment of the current route of Footpath 15 - would provide minimal utility journey opportunities, being limited to journeys between Prested Hall and the few remote homes and businesses to the north on the west side of the A12. Anyone travelling from New Lane and Hanover Square and Feering to the west could readily use the proposed Prested Hall Overbridge to reach Prested Hall and the Public Rights of Way beyond.

In considering a proposed additional bridge as raised in this request, the Applicant has therefore reached the conclusion that this could not be justified by the low potential usage given the availability of the proposed improved routes via Prested Hall Overbridge and Easthorpe Road Overbridge to the north.

## 2.13.4

### Examiner's Question to ECC

ECC raised a number of access concerns in their LIR at paragraph 8.3 REP2-055. The Applicant has provided a detailed response [REP3-021] and also in section 108 of REP3-012 and ECC is asked for an updated position in the context of the proposed public routes for walkers, cyclists and horse riders

### Applicant's Response

N/A

## 2.13.5

### Examiner's Question to the Applicant and Crown Estates

The Applicant confirms that this is a priority issue. It is noted that Heads of Terms have been exchanged and a workshop took place on 17 March 2023. The ExA awaits an update on progress towards getting a consent under section 135, PA2008 by the close of the Examination.

### Applicant's Response

A number of meetings have been held between the Crown Estates (TCE) and the Valuations Office Agency, the most recent being on 10th March 2023 to progress discussions on valuation and compensation issues. Based on a review of the TCE's claim and further discussion a proposal was made to agree the claim. A response is anticipated shortly.

The Applicant has requested an update on when S135 consent would be forthcoming from the Crown Estate and remains confident it will be granted before the end of examination.

## 14. Material Assets and Waste

### 2.14.1

#### Examiner's Question to the Applicant

In support of the proposed use of borrow pits, the Applicant identifies that their use would result in a potential reduction in construction vehicles that would need to use the public highway, along with an associated reduction in construction vehicle miles. Can the Applicant provide information in relation to the predicted construction vehicle movements associated with the use of borrow pits, compared with importing material from sources outside of the Order Limits, along with any other associated environmental benefits, including GHG emissions, that they consider would arise from their use.

#### Applicant's Response

To briefly summarise:

- GHG emissions associated with the transport of earthworks materials are estimated to be reduced by over 90% by sourcing materials from the borrow pits (e.g. for general fill material, transportation emissions are estimated to be 859 tCO<sub>2</sub>e when sourced from borrow pits, compared to 14,619 tCO<sub>2</sub>e when sourced from the market or other local sources).
- GHG emissions associated with the transport of earthworks materials are estimated to be reduced by approximately 80% by transporting unsuitable material as backfill to the proposed borrow pits.
- In a similar vein, the air quality for local communities that are in close proximity to the A12 would be impacted less by sourcing materials from the borrow pits by reducing earthworks related traffic movements.
- If borrow pits were to be removed from the proposed scheme the combination of transport effects would total an approximate 60% increase in external HGV movements, over the assessment made in the Transport Assessment, into and out of the proposed scheme order limits.

- The importing of material from sources outside of the order limits could cause an increase in HGV traffic on parts of the A12 leading to the proposed scheme. This would lead to an increase in noise for local communities that are in close proximity to the A12 and already exposed to high levels of noise.

Further to the above, the use of borrow pits on the proposed scheme will result in a reduction of construction vehicles that need to use the public highway.

By nature of their chosen location (shown in the Borrow Pits Report [APP-278]) and the inclusion of temporary off-road haul routes (shown in Temporary Works Plans [AS-004] as Works T18, T20, T23, T26, T39 and T46), a significant portion of the material haul traffic will not need to use the public highway.

By using off-road haul routes, larger, better purposed construction vehicles can be used to transport the material. Road lorries can typically carry 8m<sup>3</sup> of fill material at a time, whereas 30-40 tonne off-road dump trucks can carry between 12-16m<sup>3</sup> at a time, reducing the number of vehicles required to carry the overall volume. Furthermore, by using material sources within the proposed scheme order limits the haulage distance is reduced significantly in comparison to off-site local sources.

The predicted construction vehicle movements for the different sourcing options are as follows:

- Source general fill material from the market or other local sources (travel by road):
  - Assumed haul distance (each way) = 50km (to-site) and 12.5km (maximum distance within A12 site)
  - Volume to be transported = 600,000m<sup>3</sup>
  - Green House Gas (GHG) emissions = 14,619 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e)
  - To maintain an import rate of 2000m<sup>3</sup>/day, to meet the demand for the proposed scheme programme, as described in the Borrow Pits Supplementary Technical Note [REP1-011] paragraph 4.1.4, this would require approximately 210 road lorry journeys (that is 210 in / 210 out) to haul the material each day. This would increase the external construction related lorry movements by almost 40% over what has been assessed in the Transport Assessment [APP-253] Section 6, based on the use of the borrow pits.

- Source general fill material from borrow pits (amalgamated travel of 80% off-road and 20% on-road):
  - Average haul distance (each way) for off-road dump truck = 1km
  - Average haul distance (each way) for road lorry = 4km
  - Volume to be transported = 600,000m<sup>3</sup>
  - GHG emissions = 859 tCO<sub>2</sub>e
- Source engineering fill material from the market or other local sources (travel by road):
  - Assumed haul distance (each way) = 50km (to-site) and 12.5km (maximum within-A12 site)
  - Volume to be transported = 300,000m<sup>3</sup>
  - GHG emissions = 7,310 tCO<sub>2</sub>e
  - To maintain an import rate of 500m<sup>3</sup>/day, as described in the Borrow Pits Supplementary Technical Note [REP1-011] paragraph 4.3.18, to meet the demand for the proposed scheme programme, this would require approximately 55 road lorry journeys (that is 55 in / 55 out) to haul the material each day. This would increase the external construction related lorry movements by 10% over what has been assessed in the Environmental Statement, excluding the above increase if general fill material were to be imported from external sources as well.
- Source engineering fill material from borrow pits (amalgamated travel of 20% off-road and 80% on-road):
  - Average haul distance (each way) for off-road dump truck = 1km
  - Average haul distance (each way) for road lorry = 5km
  - Volume to be transported = 300,000m<sup>3</sup>
  - GHG emissions = 552 tCO<sub>2</sub>e.
  - The information presented in the Borrow Pits Cost Information [REP3-023] shows a 'contractors opportunity allowance'

which demonstrates the commercial benefits of disposing of unsuitable material as backfill to the borrow pits. The volume of material expected to be transported to proposed scheme borrow pits is 250,000m<sup>3</sup>. This also has environmental benefits linked with the transportation of the material as follows:

- Export unsuitable material to areas outside of the proposed scheme Order Limits (travel by road):
  - Assumed haul distance (each way) = 50km (from-site) and 12.5km (maximum within-A12 site)
  - Volume to be transported = 250,000m<sup>3</sup>
  - GHG emissions = 6,091 tCO<sub>2</sub>e
  - To maintain an export rate of 500m<sup>3</sup>/day, which is reasonable considering the volume of material to be moved over the proposed scheme programme, this would require approximately 55 road lorry journeys (that is 55 in / 55 out) to haul the material each day. This would increase the construction related external lorry movements by 10% over what has been assessed in the Environmental Statement, excluding the above increase if general and engineering fill material were to be imported from external sources as well.
- Transport unsuitable material to borrow pits (travel by road):
  - Assumed haul distance (each way) = 12.5km (maximum within-A12 site)
  - Volume to be transported = 250,000m<sup>3</sup>
  - GHG emissions = 1,218 tCO<sub>2</sub>e
- Traffic Considerations
  - Off-road dump trucks do not contribute to the daily volume of traffic on the public highway, which is what has been assessed in the Transport Assessment [APP-253]. The above construction related internal road lorry movements (road lorries needing to use the public highway to travel between sites where off-road transport via haul road is not practicable) associated with importing fill from borrow pits are already catered for in the traffic assessment undertaken for the Environmental Statement.

- Climate considerations
  - From the above GHG calculations the lower number of lorry movements coupled with the shorter distances travelled by using borrow pits within the proposed scheme Order Limits shows that they are the most suitable solution in regard to traffic volumes on the highway network, economics and carbon emissions.
  - To put the difference in estimated GHG emissions between the above options into context, the reductions in transportation GHG emissions described for general fill material, engineering fill material and unsuitable material, equate to approximately 6% of total estimated construction phase GHG emissions presented within Table 15.21 of Chapter 15: Climate [APP-082].
  - GHG emissions associated with the physical extraction of raw materials (e.g. as a result of fuel or electricity consumption) are likely to be similar for both the borrow pits and other local sources, as similar processes will be used. Therefore, this analysis has focused solely on potential differences in transportation related emissions.

Whilst this response is focussed on the climate and transport benefits of using borrow pits on the proposed scheme, air quality and noise for receptors along the existing A12 will also be less impacted with the reduction of earthworks related traffic movements as discussed above.

## 15. Noise and Vibration

### 2.15.1

#### Examiner's Question to the Applicant

Notwithstanding the detail already submitted, please can the Applicant provide more detail on how noise from construction activities across the site will be mitigated, focusing in particular upon noise arising from the proposed compounds and associated activity, and the extraction works at the proposed borrow pits. Furthermore, at the ASI the ExA visited Columbine Cottage, which is located in close proximity to the construction works. Please can the Applicant identify what mitigation measures are proposed in this location and how these measures would be secured through the dDCO?

#### Applicant's Response

##### Securing Mitigation measures for noise from compounds

The mitigation measures to mitigate for noise (and other associated impacts) from the compounds are principally secured in the dDCO through the First Iteration Environmental Management Plan [APP-184] and in particular the following appendices to it:

- Appendix C: Construction Compound management Plan [APP-187] which has been revised at Deadline 4 to include further detail [Applicant Reference Appendix C: Construction Compound Management Plan TR010060/APP/6.5 rev 2]
- Appendix E: Dust Management Plan [APP-189]
- Appendix K: Noise and Vibration Management Plan [APP-195]

At Deadline 4, Appendix A: Register of Environmental Actions and Commitments (REAC) [APP-185] has been updated to include new commitments that will provide further management controls for communications on specific issues (and associated complaints) including



those relating to compounds and how the haul roads and internal access roads are managed [Applicant Reference Appendix A: Register of Environmental Actions and Commitments (REAC) TR010060/APP/6.5 rev 2].

- GN4 – A Construction Phase Communications Plan
- GN5 – A new appendix to the EMP – Appendix O, Haul Road Management Plan (GN5)

Additionally, matters affecting the transportation into and out of the compounds and borrow pits, which are likely to generate both traffic and noise concerns, are also included in the Outline Construction Traffic Management Plan [REP2-003] in section 5.6 for Borrow Pits, section 5.7 for Construction Compounds and section 5.11 for Plant Crossings.

Some of the key mitigation measures are outlined below.

### **Compounds**

Compounds tend to be busy and therefore have been located away from residential areas where feasible. The two main compounds and three satellite compounds would be in 24/7 operation at certain stages of the construction programme to facilitate off-peak working. The following key mitigation measures have been considered with regard to noise:

- The placement of stockpiles between adjacent properties and compounds, where possible.
- Compound layouts will be designed so that stores are located and construction activities (such as refuelling, traffic management operations) take place at the furthest part of the compound from residential receptors, where practicable.
- The location of site offices so that they are as far away as possible from neighbouring properties, and where appropriate with the rear of offices facing receptors so the buildings act as a screen.
- The use of less intrusive noise alarms that meet the particular safety requirements of the site, such as broadband reversing warnings, or proximity sensors to reduce the requirement for traditional reversing alarms.

- Management of staff congregating outside the site prior to commencing or leaving work.
- Avoidance of the use of loudspeaker or loudhailer devices.
- One-way systems to minimise reversing, where possible.
- Cleaning facilities for vehicles and traffic management storage to be as far from receptors as possible.
- Connection to electrical mains supply or the use of green energy such as solar or wind as soon as practicable to reduce the noise impacts of a generator in the main compounds

Other examples of typical mitigation measures include those below which have already been incorporated in the detailed design for the main compound at junction 20b. Early engagement with adjacent properties with regard to impacts from the compound enabled their feedback to be considered in compound design (for example, the way in which the Limits of Deviation were set on the access road (Work No.T14)) as shown on the Works Plans Temporary Works [AS-004].

- Seeded soil bunds to the west and south of the compound.
- The access road into the compound was moved approximately 30m to the east, so it was further away from neighbouring properties.
- To avoid queuing of vehicles trying to gain access into the compound and associated noise impacts, the security hut was moved to the east side of the compound away from the adjacent properties.
- Site offices, welfare, stores, and refuse were located to the northern part of the compound, to be kept as far away from adjacent properties as practical.

## **Borrow pits**

To reduce noise and visual impacts the following mitigation measures have been provided:

- Bunds to separate borrow pits from receptors.
- Borrow pits have been located as far away from receptors as practicable.
- Idling plant would not be permitted when not being used.
- Internal haul roads have been placed to avoid receptors where practicable.
- No working of borrow pits during night time working hours, materials processing only during standard daytime working hours.
- Use of electric plant, in particular pumps, where practicable.
- Positioning of processing plant within borrow pits so that they are as far away from residential receptors as practicable.

## **Columbyne Cottage**

The Applicant has looked to mitigate the impacts on Columbyne Cottage from the nearby borrow pit by adopting measures listed in the preceding paragraphs. These will be secured through the dDCO by the documents referenced above.

In particular, to mitigate the impacts of the laydown works at proposed junction 24, the Applicant has strategically placed temporary materials storage areas to provide screening to the haul road and junction 24 works to reduce noise and visual impacts as shown on Sheet 14 of 21 of the Construction Phase Plans – Part 2 [AS-019].

In recent engagement with the residents of Columbyne Cottage, the Park Bridge laydown area, as shown on Sheet 14 of 21 of the

Construction Phase Plans – Part 2 [AS-019], has been of particular concern to them. In response to this the Applicant has updated the first iteration Environmental Management Plan, Appendix C: Construction Compound Management Plan [Applicant Reference Appendix C: Construction Compound Management Plan TR010060/APP/6.5 rev 2], Section C.4 at Deadline 4 to show that the Park Bridge laydown area includes typical mitigation measures in line with those listed above for the main Junction 20b compound. The Applicant aims to alleviate the concerns of the residents by demonstrating that laydown areas are not located where construction activities will be undertaken, and that the storage of materials will not generate high levels of noise and vibration.

## 2.15.2

### Examiner's Question to the Applicant

The ExA has reviewed ES Chapter 12 (Noise and Vibration) [APP-079], in particular section 12.10 in relation to night-time working. Notwithstanding this, please can the Applicant provide further details of how often night-time working is likely to occur, what mitigation is proposed to minimise disturbance and what measures would be put in place to ensure advance notice is given to local stakeholders and local residents. Please also confirm how these measures would be secured through the dDCO.

### Applicant's Response

Over the course of the construction programme of the proposed scheme, the Applicant predicts night-time working on an average of 3 out of 5 weekday nights per week. These works would often be transient in nature and in localised stretches along the 25 km length of the proposed scheme and would therefore not extend for the entire construction programme. Additionally, 25% of weekend nights would also be utilised for works such as demolition and construction of structures that span the A12, although this is an initial assessment and is subject to refinement during the detailed design.

The construction activities that are likely to require night-time working are shown within Tables 2.1 to 2.11 of Appendix 12.4: Construction Noise Calculations, of the ES [APP-150]. These tables show the activities likely to require night-time working. The need for extensive night-time working is driven mainly by the constraints of working within a live road environment, as during peak traffic hours two lanes of traffic need to be open in both directions. Therefore, any works that require more space, to physically carry out the work or for the safety of the workforce and/or road users, will need to be undertaken during night-time hours. This work would mainly be confined to widening of the mainline areas of the scheme or where new junctions and roads join the existing alignment.

To mitigate the effects of night-time working, the Applicant would coordinate activities where reasonably practicable, to maximise work carried out within lane, carriageway and total closures, thereby reducing the number of night-time closures required (Outline Construction Traffic Management Plan 1.2.2 [REP2-003]).

In some areas of the proposed scheme (e.g. Hatfield Peverel, Witham bypass) there would be a requirement to undertake night-time working initially to enable more disruptive works to be carried out during day-time working hours. Without these initial phases of night-time work to create working space, much more of the works would need to be carried out at night.

For example, to enable as much of the work as practicable to be carried out during daytime hours, traffic management through Hatfield Peverel would be carried out under contraflow with narrow lane running. This will maximise the working space in each verge to safely accommodate the construction plant needed to construct the works and create a route through the works for site vehicles. To enable this daytime working an initial phase of night-time working would be required, to undertake a temporary widening and hardening of the northbound verge which will create enough space to enable traffic to be placed into contraflow. Installation, modification, and removal of the associated traffic management would also be undertaken at night.

In addition, undertaking certain activities at night such as installing safety barrier and temporary widening and hardening of verges to create safe working areas enables more disruptive activities such as piling to be undertaken during daytime working hours. By using these mitigation measures, the Applicant considers that noise from night-time working will be minimised as far as is practicable.

To mitigate against the traffic impacts on local communities the Applicant has proposed a strategic diversion route as detailed in Section 4.3 of the Outline Construction Traffic Management Plan (OCTMP) [REP2-003]. Whilst this will avoid traffic diverting into the towns and villages along the A12 such as Hatfield Peverell and Kelvedon it will divert traffic along the current strategic diversion route and near communities such Braintree and Coggeshall. This proposal has been assessed within Chapter 12: Noise and vibration [APP-079] at paragraphs 12.11.22 to 12.11.24.

The noise mitigation measures to be employed for construction activities, including night-time works, are presented within:

- Paragraph 12.10.11 of Chapter 12: Noise and Vibration [APP-079].
- Section K.6 of the First Iteration Environmental Management Plan Appendix K: Noise and Vibration Management Plan [APP-195].

Specific measures to reduce impacts associated with night-time working include:

- Careful selection of plant and working methods
- Identifying the need for noise monitoring where appropriate in method statements for night-time works
- Ensuring appropriate authorisation of night-time personnel to cease works if construction methods need to be amended or if monitoring indicates any local issues
- Ensuring appropriate briefings are given to the work force regarding noise impacts and the importance of reducing noise.
- All plant and machinery in intermittent use would be shut down in intervening periods between work or throttled down to a minimum,
- The use of localised temporary acoustic barriers where appropriate
- Use of less intrusive alarms on vehicles, for example broadband vehicle reversing warnings
- Planning so that works that create a greater disturbance such as piling can be undertaken during daytime working hours, where practicable.
- A communication strategy so residents and businesses within the local area are informed in advance.
- Undertaking noisier activities that need to be done during night-time hours earlier on in the shift i.e. before midnight, where practicable.

The following commitments are contained within the first iteration Environmental Management Plan Appendix A: Register of Environmental Actions and Commitments (REAC) [APP-185]:

- NV1: Production of a Noise and Vibration Management Plan (NVMP).
- NV4: Adhere to standard working hours as far as is reasonably practicable.
- NV8: Work towards reducing the number of overall number of night-time carriageway closures required by aiming to carry out multiple works within planned carriageway closures

In relation to advance notice to residents, the first iteration Environmental Management Plan Appendix K: Noise and Vibration Management Plan [APP-195] includes the following control measure: 'Local residents would continue to be informed of construction works programmes and emergency or unscheduled works which may affect them'. To achieve this, the Applicant would ensure advanced written notice of a minimum of 10 working days (except in an emergency) as detailed in section 5.4 of the Outline Construction Traffic Management Plan (OCTMP) [REP2-003] (by letter or email) is provided to all residents and landowners in the vicinity of planned work, explaining its nature and duration, and would advise parish, district and county councils of the same by email and in regular engagement meetings. Links to the project website and social media platforms containing more detailed information and in some cases, short video examples of certain procedures, will be provided to give customers a better understanding of what to expect. In consideration of special requirements and circumstances, individuals will be contacted by phone and email. A Construction Phase Customer Communications Plan will set out a timetable of public engagement methods to keep customers informed of traffic management and project works, managed by the Community Liaison Team.

The Construction Phase Communications Plan will be secured in the updated Register of Environmental Actions and Commitments [Applicants Reference TR010060/APP/6.5 Appendix A: Register of Environmental Actions and Commitments (REAC) rev 2] contained as GN4, submitted at Deadline 4.

## 2.15.3

### Examiner's Question to the Applicant

Paragraph 5.195 of the NNNPS identifies that the SoS should not grant development consent unless satisfied that proposals would meet the following aims: • avoid significant adverse impacts on health and quality of life from noise as a result of the new development; • mitigate and minimise other adverse impacts on health and quality of life from noise from the new development; and • contribute to improvements to health and quality of life through the effective management and control of noise, where possible. Given the conclusions of ES Chapter 12, Noise and Vibration [APP-079] in relation to the predicted significant operational noise effects that would arise in Messing, Inworth and Boreham, please explain how the Proposed Development meets this paragraph.

### Applicant's Response

The way in which the proposed scheme meets the three aims of paragraph 5.195 of the NNNPS is discussed in paragraph 12.13.8 of Environmental Statement Chapter 12: Noise and vibration [APP-079]. This information is repeated below with the addition of specific reference to Messing, Inworth and Boreham.

These three aims of the NNNPS need to be met 'within the context of Government policy on sustainable development'. As is described in Section 3.65 of DMRB LA 111 Noise and Vibration, and as applied in all consented road scheme, such factors include cost, engineering constraints and adverse impacts on other environmental aspects of the proposed scheme.

In summary, the significant adverse effects in the three areas identified are all caused by an increase in traffic flow on the local road network as summarised below:

- Within Messing, there are 71 dwellings where there are predicted to be significant adverse effects. These are caused by a moderate (3–5dB(A)) increase in noise at 16 dwellings and a major (+5dB(A)) increase at 55 dwellings. None of these dwellings has an absolute noise level above the Significant Observed Adverse Effect Level (SOAEL) with the proposed scheme, so these are significant adverse effects based on a change in noise (paragraph 12.11.47 of Chapter 12 [APP-



079]), in accordance with DMRB thresholds, but are not above the SOAEL.

- Along Inworth Road there are four dwellings where the absolute noise level would be just above the SOAEL and there would be up to a 1.3dB(A) (minor) increase in noise. These four dwellings are already above the SOAEL without the proposed scheme (paragraph 12.11.44 of Chapter 12 [APP-079]).
- Along Main Road in Boreham there are 28 dwellings where there would be minor increases in noise (between 1dB(A) and 2.9dB(A)) with the absolute noise level being above the SOAEL (paragraph 12.11.31 of Chapter 12 [APP-079]). Of these 28 dwellings, 19 of them are above the SOAEL without the proposed scheme.

In interpreting the aims of the NNNPS, the additional guidance within Table E/1.3 of DMRB LA111 has been applied. Within this table it states that Aim 1 is applicable only to locations above a SOAEL, since significant adverse impacts on health can only occur above this level. Aim 2 is applicable to locations between the Lowest Observed Adverse Effect Level (LOAEL) and SOAEL and Aim 3 is applicable to all levels of noise.

### **Aim 1 – Avoid significant adverse impacts on health and quality of life from noise as a result of the new development**

Likely significant adverse impacts from the proposed scheme have been avoided within the context of sustainable development. This has been achieved using the following measures:

- The provision of a surface with better noise reducing properties than a conventional low noise surface, and
- The provision of noise barriers in certain locations.

Where it is not possible to avoid the identified significant effects then reasoning has been provided within Chapter 12: Noise and vibration [APP-079]. Two of these areas where significant operational noise effects have been identified are Inworth and Boreham. Within the context of sustainable development, it has not been possible to avoid these significant adverse effects. As is outlined in Chapter 12: Noise and vibration [APP-079], there are reasons why mitigation cannot be applied. For Inworth this is presented in

paragraph 12.11.44 and for Main Road in Boreham this is presented in paragraph 12.11.31. Within the bounds of engineering feasibility, it would be possible to avoid the identified significant noise effects. However, the measures necessary in these areas would be extreme and some would transfer the traffic (and subsequent noise) elsewhere. For example, the identified significant effects could be avoided by imposing very low speed limits or completely enclosing the road by building a tunnel. The consequences, or resources required in doing this would be considered unsustainable.

Since the absolute noise levels in Messing are below the SOAEL, this aim is not applicable in accordance with Table E/1.3 of DMRB LA 111.

### **Aim 2 – Mitigate and minimise other adverse impacts on health and quality of life from noise from the new development**

The adverse impacts from the proposed scheme have been minimised through the choice of alignment and the inclusion of earth bunding within the design. Within Boreham, the increase in noise has been minimised by lowering the speed limit from 40mph to 30mph. With the chosen design for the proposed scheme, and in the context of sustainable development, it has not been possible to mitigate or minimise the increase in noise and subsequent significant adverse effects within Messing. This is because the use of a low noise surface or noise barriers would not be effective within Messing, as is reported within paragraph 12.11.47 of Chapter 12: Noise and vibration [APP-079]. Since Aim 2 is intended to apply to those receptors where noise levels are predicted to be between the LOAEL and SOAEL, it is not applicable to the locations where significant adverse effects have been identified within Inworth, as these are above the SOAEL, and therefore fall to be considered under Aim 1.

### **Aim 3 – Contribute to improvements to health and quality of life through the effective management and control of noise, where possible**

Aim 3 is understood to refer to all receptors with a predicted increase in noise. The use of measures to reduce the noise at source (i.e. a surface with better noise reducing properties than a conventional low noise surface) has provided widespread reductions in noise for communities living alongside the proposed scheme. However, within the context of sustainable development it has not been possible to

meet this aim in the three areas mentioned, as neither of the mitigation options available (i.e., low noise surfacing and noise barriers) would be effective in these locations, as is explained in Chapter 12: Noise and vibration [APP-079]. A low noise surface is only considered to be effective by DMRB LA 111 when average speeds are above 75km/h. The predicted average traffic speed along these roads is less than this speed. For a noise barrier to be effective it needs to be unbroken and in situations such as these, where access is required to sensitive receptors, it is not possible to have a barrier that is unbroken. Noise barriers in these settings are also likely have adverse visual effects.

## 16. Socio Economic Effects

### 2.16.1

#### Examiner's Question to the Applicant

Essex Police have raised concerns [REP3-039] about interruption to their operations and have asked for an updated Outline Construction Traffic Management Plan. Can the Applicant review these concerns and make any necessary amendments and submit to the Examination by Deadline 4?

#### Applicant's Response

The Applicant is currently in discussion with Essex Police with regards to drafting a Statement of Common Ground (SoCG), a draft version has been submitted at Deadline 4 [Applicant's Reference TR010060/EXAM/8.20].

An updated Outline Construction Traffic Management Plan (revision 3) has been submitted at Deadline 4 [Applicant's Reference TR010060/APP/7.7 rev 3] to include updates from ongoing stakeholder engagement. It is anticipated that a further update may be required at Deadline 6 which could include any further agreed updates should they be requested by Essex Police.

One of the mitigation measures which is in Table 3.1 (Issues agreed) within the draft SoCG would be the provision of a holding location for emergency vehicles to reduce disruption to their operations. A meeting was held with Essex Police on the 21st of March 2023 to

discuss the draft SoCG and it was agreed that the Applicant would provide a holding area in one of the main compounds or satellite compounds. Essex Police is currently assessing the most suitable location for their operations.

## 2.16.2

### Examiner's Question to the Applicant

Lynfield Properties have objected on behalf of a number of affected businesses in Witham [REP3-049]. They are maintaining an objection whilst further discussions can take place. Has this in fact occurred and with what result?

### Applicant's Response

Prior to and throughout the course of the consultation of the proposed scheme, including as part of the Statutory and Supplementary Consultations, there have been meetings between the Applicant and Lynfield Properties (LPL). These took place on 6th February 2020, 8th November 2021 and 22nd December 2021. Most recently there was a meeting on 16th March 2023.

In the latest meeting, the Applicant offered to provide further details on the provision for Heavy Goods Vehicle (HGV) manoeuvres that allow them to exit the service station and re-join the highway, including information about the design, including swept path and gradient.

The next meeting is due to be held on 17th April 2023. National Highways are committed to continuing to work with LPL to minimise impacts of the proposed scheme where practicable.

Further information has been provided by the Applicant, relating to the provision for HGV manoeuvres which is via a Private Means of Access for the benefit of LPL, in the response to LPL's Deadline 3 submission [REP3-049].

New provision is provided for HGV customers to exit the site. Sheet 7 of The Streets and Rights of Way Plans [AS-008] shows a Private Means of Access (PMA) (7/A) included from the existing HGV exit from the site that would enable HGVs to drive to the existing Hatfield

Road. The bulbous shape at the southern end of this PMA is to cater for the swept path of the HGV's as they turn to leave the site. With the proposed scheme, HGV and other vehicular access and egress to and from the site would be enabled from the A12 via the new all movements junction 21, for both northbound and southbound traveling vehicles.

### 2.16.3

#### Examiner's Question to the Applicant

The objection on behalf of Prested Hall [REP3-076] refers to the impact on their business. It is noted that a meeting was planned for 16 March 2023. Please confirm the outcome of this.

#### Applicant's Response

An in-person meeting at Prested Hall was held on 28 March 2023. The Applicant has been made aware of the constraints the proposed scheme may put on the business and is committed to working with the Interested Party in order to mitigate this wherever practicable.

This includes a preparing a Construction Phase Communication Plan (See First Iteration Environmental Management Plan Appendix A: Register of Environmental Actions and Commitments (REAC) [Applicants Reference TR010060/APP/6.5 Appendix A: Register of Environmental Actions and Commitments (REAC) rev 2] GN4 and allocating a stakeholder manager to ensure that any disruption to the business from construction traffic is minimised, is fully communicated in advance and priority is given to the traffic from Prested Hall when the plant crossing is operational.

More detail around the date and timings of the proposed works and how they may specifically affect Prested Hall and the associated businesses is being compiled and will be provided to the Interested Party.

Where it is not possible to mitigate impacts on the business, compensation will be negotiated and offered in line with the compensation code. The Applicant invited the Interested Party to present the business impact case in writing to be assessed and then a further meeting with the Applicant's blight specialist can be scheduled to provide feedback on this.

Further details relating to Prested Hall and the Applicant's responses to them can be found in the Applicants response to REP3-076 [Applicant's Comments on Information Received at Deadline 3 TR010060/EXAM/9.42].

## 2.16.4

### Examiner's Question to the Applicant

The ExA visited the site of the Fisheries at Little Braxted during the ASI. Photographs of the site have been submitted by Strutt and Parker at REP3-079. This representation outlined the resultant impact on the fisheries business. Can the Applicant explain whether any measures are proposed to mitigate potential impacts of the Proposed Development on the fisheries business? If so, can it provide a description of such measures and explain how they would be secured through the dDCO or other legal mechanism?

### Applicant's Response

The Applicant acknowledges that in some aspects the construction and operation of the proposed scheme, if unmitigated, would have impacts on the fisheries business, namely:

- Disruption during construction
- Increased security risk
- Restrictions on use of and maintenance of Stepfield Lake

Wherever practicable the Applicant has aimed to design out these impacts however this has not always been practicable or feasible.

The Applicant does not accept that the following potential impacts would occur, so therefore do not need further mitigation, beyond that already in the DCO and listed below:

- Increase in operational noise
- Increased water pollution risk

The potential impacts of the proposed scheme on the fisheries are generally related to the geometry of the proposed A12 adjacent to the business. The footprint of the road and verge is driven by the switch from online widening of the existing Witham Bypass alignment to the proposed off line junction 22, the influence of the southbound entry slip road and the forward visibility required around the left hand bend. This causes the new alignment to encroach into the existing earth bund. An earthworks slope is projected from the back of the proposed verge, which reduces the height of the bund.

This geometry is fixed by the highway design needs associated with the all movements junction and the desire to construct junction 22 offline, which significantly reduces the construction impacts of traffic during the construction phase. Removing these constraints to reduce the impacts on the fishery would result in disproportionate consequential impacts.

### **Design Mitigation**

The Applicant has already considered the following measures during detailed design but these cannot be delivered by the proposed scheme.

- Retaining features to limit the loss of height of the noise bund.

As the highway geometry moves south into the offline junction 22, coupled with the third lane and forward visibility requirements for both the main carriageway and the slip road, the highway geometry and associated verge encroach significantly into the existing noise bund. As the noise here is already mitigated through the use of the enhanced surfacing the additional investment of retaining features cannot be justified to avoid/reduce reduction in the loss of height of the bund.

- Increased pollution control.

To further reduce the risk of water pollution, measures such as vortex separators could be considered. However, these would likely require verge widening to accommodate their size and would require additional access from the carriageway to enable them to be maintained. In addition to the increased cost, they could indirectly further increase the loss of height of the existing noise bund.

The Applicant will consider the following during the ongoing detailed design of the scheme:

- moving the alignment of the proposed PRow as far north as is practicable so long as it does not have further unintended impacts on the height and/or width of the existing bund. This is enabled by the Limits of Deviation shown on the Streets and Rights of Way plans [TR010060/APP/2.6 Streets, Rights of Way and Access Plans (Part 1 and Part 2) rev 3], submitted at Deadline 4.

### **Construction Phase Impacts**

It is acknowledged that due to the proximity of the Order Limits to the bank of Stepfield Lake, fishing from the northern bank would not be practicable for potentially 3 years.

The Applicant has considered routing the haul road towards the A12 side of the bund, however this is not possible for the whole length of the fishery, therefore could only partially mitigate the impact of the construction traffic on the haul route. Access would still be needed to the rear of the bund for a number of construction activities including:

- installation and removal of the haul road,
- construction of the footpath

For safety reasons it is necessary to exclude people from areas where construction plant is operating. This is of particular importance when considering large earthmoving plant, where if practicable segregated routes would be preferable. It certainly would not be safe to permit fishing from the northern bank.

As such the Applicant does not believe it to be appropriate to reduce the Order Limits in the vicinity of the lake.

Lost profits as a result of this impact may form part of a claim for disturbance compensation.



## **Environmental Mitigation**

The following measures are secured, principally in the Register of Environmental Actions and Commitments (REAC) [Applicants Reference TR010060/APP/6.5 Appendix A: Register of Environmental Actions and Commitments (REAC) rev 2] and Requirement 3 of Schedule 2 of the dDCO relating to impacts on the fisheries business. Further detail as to how the measures mitigate the impacts locally at the fishery is provided below.

- Lost vegetation - LV4 of the Register of Environmental Actions and Commitments (REAC)
- Operational Noise - NV10 of the Register of Environmental Actions and Commitments
- Water Quality - Drainage and Surface Water Plans Part 2 [APP-034] and REAC – RDWE02
- Construction Phase – First Iteration Environmental Management Plan [TR010060/APP/6.5 First Iteration Environmental Management Plan rev 2] and the management plans forming its appendices.

## **Further commitments**

Additional, specific mitigation is being discussed with the affected parties and will be recorded in a position statement:

- Access around Stepfield Lake – Position Statement between the parties
- Security to the proposed Public Right of Way - Position Statement between the parties
- Moving the alignment of the proposed PRow as far north as is practicable – Streets and Rights of Way Plans

### **Access around Stepfield Lake**

The Applicant will make a commitment to return land to the existing owner so that a strip adequate for the maintenance and passage of vehicles is retained around the perimeter of the lake. The Applicant will include this in a Position Statement currently being drafted between the parties.

### **Security to the proposed Public Right of Way**

The Applicant will agree a suitable boundary treatment that is both suited to the environment and provides adequate security against trespass/poaching risk along the length of the Public Right of Way where it is adjacent to the fishery. A suitable planting regime will be installed on the fishery side of the fence to ensure a longer-term deterrent once any fencing is past its serviceable life. The Applicant will include this in a Position Statement currently being drafted between the parties.

### **Compensation**

In addition, compensation for land taken and injurious affection to retained land as well as disturbance, can be claimed in accordance with the compensation code.

### **Further Details**

#### **Lost Vegetation**

The worst-case extent of vegetation loss is illustrated on the Retained and Removed Vegetation Plans [APP-035, AS-017]. However, existing vegetation within the Order Limits including temporary works areas would be retained where reasonably practicable in accordance with mitigation LV4 of the Register of Environmental Actions and Commitments, appended to the first iteration of the First Iteration Environmental Management Plan [APP-185]. West of the Fisheries at Little Braxted, there would be some loss of existing vegetation on the highway face of the bund, although vegetation on the eastern face of the bund would be retained.

Proposed mitigation planting west of the Fisheries at Little Braxted is illustrated on part 2, sheet 9 of Figure 2.1: Environmental Masterplan, of the Environmental Statement [APP-087]. Intermittent trees and shrubs would be incorporated on the highway face of the

bund to help integrate the proposed scheme into the landscape.

### **Operational Noise**

The results from the noise assessment in this area did show, prior to mitigation, a significant increase in noise of more than 3 dB(A). This was caused by the changes in alignment, an increase in traffic flow on the A12, and a reduction in height of the earthworks. However, this potential significant effect has been avoided by the use of a road surface on the A12 which possesses better noise reducing properties than a conventional low noise surface. With this measure in place the predicted increase in noise in this area is predicted to be between 1 and 3 dB(A), and this is shown on Figure 12.8: Noise change contour map – opening year 2027 [APP-235]. This increase in noise would generally be considered not noticeable and the Applicant does not consider this would have an adverse impact on the business. The provision of the surface with better noise reducing properties than a conventional low noise surface is secured within commitment NV10 of the Register of Environmental Actions and Commitments [APP-185] that is within the first iteration of the Environmental Management Plan [APP-184].

### **Water Quality**

The Water Quality Assessment Report [APP-158] and the Surface Water Drainage Strategy [APP-174] identify the assessment undertaken to determine likelihood of any significant impact on the water environment and mitigation proposed. The Drainage and Surface Water Plans Part 2 [APP-034] identify the road catchments that will discharge to the watercourse adjacent to the fishing lakes and they also identify mitigation proposed. At this location, there was an assessed potential impact of significance without embedded mitigation for water quality. Embedded mitigation in the form of filter drains and retention ponds is proposed in the Applicant's submission and will be provided at this location. It is assessed that the embedded mitigation will provide sufficient treatment to ensure no resultant significant effect.

The Applicant also proposes to monitor water quality for typical pollutants from a highways scheme (ie total suspended solids, dissolved metals) downstream of the proposed outfall points to meet the requirement RDWE 2 of the Record of Environmental Actions and Commitments [APP-185]. This will be further detailed in the Surface Water Quality Monitoring Plan to be included within the second iteration environmental management plan. Monitoring is proposed to take place pre and post scheme to establish a baseline water quality and identify any changes in water quality.

## 17. Traffic and Transport

### 2.17.1

#### Examiner's Question to the Applicant

Notwithstanding the submissions made at ISH1 [REP3-012] which outline the Applicant's position in relation to additional traffic in Messing, Inworth and Tiptree, please summarise: • the alternative options considered which would avoid, reduce or mitigate the additional traffic and its associated noise; and • justify the reasons why each option has been discounted.

#### Applicant's Response

The proposed scheme predicts an increase in traffic on Harborough Hall Road & The Street, and Kelvedon Road in Messing as vehicles use these roads to access junction 24. Whilst this increase in traffic only results in a total of two vehicles per minute on the road during the busiest peak in Messing and is within the capacity of the local road network, the Applicant has explored alternative options to reduce this additional traffic flow in the village.

#### Closure of Kelvedon Road

The Applicant explored the closure of access between the B1023 Inworth Road and Kelvedon Road, as this would be the most effective at reducing traffic in Messing. This closure and removal of through traffic would also remove the predicted significant adverse noise effects to 71 dwellings within Messing. This would, however, lead to an increase in traffic in Tiptree and would cause 63 significant adverse effects at dwellings along Oak Road, five along Kelvedon Road in Tiptree and two in Inworth. Of these 63 dwellings, 20 would have an absolute noise above the Significant Observed Adverse Effect Level (SOAEL). For these reasons, the closure of Kelvedon Road in isolation was discounted and interventions on Oak Road were considered.

### **Closure of Kelvedon Road and Interventions on Oak Road**

To avoid the increase in traffic on Oak Road that would lead to the significant adverse noise effects described above, the Applicant explored introducing a Traffic Regulation Order to prohibit the road being used as a “through road”, allowing it to be used by residents only. Traffic modelling of this scenario assumed that traffic which had previously diverted onto Oak Road when Kelvedon Road in Messing was closed instead travelled via the B1022 Maypole Road to the double mini-roundabouts in the centre of Tiptree, then travel north via the B1023 Church Road/Inworth Road to reach junction 24. Whilst this would remove the predicted significant adverse noise effects at 71 dwellings in Messing, this additional traffic would lead to additional pressure on the double mini-roundabouts in Tiptree town centre and significant adverse noise effects at 10 dwellings along Kelvedon Road in Tiptree and two within Inworth. All of these 12 dwellings would have an overall noise above the SOAEL, which should be avoided in accordance with aim 1 of the NNNPS. The traffic and noise impacts resulting from the closure of Kelvedon Road with interventions on Oak Road are worse than the impact of the proposed scheme without additional interventions, therefore this option has also been discounted.

### **Bypass of Inworth and Messing**

The Applicant has considered the bypass proposal presented by the Messing and Inworth Action Group (MIAG), the Main Alternative, along with other variations of bypass arrangements in extensive detail throughout the development of junction 24. This is documented in the Scheme Assessment Report Addendum [REP1-006] and the Junction 24, Inworth Road and Community Bypass Technical Report [APP-095].

A bypass would reduce the volume of traffic on Inworth Road through Inworth as traffic travelling between Tiptree and junction 24 would divert to use the new bypass instead of Inworth Road. It would also reduce the projected traffic increases through Messing village. However, this is predicted to result in an increase in traffic on Oak Road in Tiptree, or an increase in traffic using the double mini roundabouts in Tiptree town centre if, as above, Oak Road is closed for through traffic to mitigate this increase. The bypass is also more likely to attract extra traffic on the sections of the B1023 south of the bypass, including through Tiptree. Of the two bypass options assessed in the Junction 24, Inworth Road and Community Bypass Technical Report [APP-095], modelling of the community bypass option without the northern link to Inworth Road north of junction 24 (DS3) indicated 63 significant adverse noise effects as a result of the bypass, of which 20 experience significant adverse effects above SOAEL. Modelling of the community bypass with a northern link to Inworth Road (DS4) indicated 90 significant adverse noise effects, of which 19 are significant noise effects above SOAEL. In comparison, the proposal to widen Inworth Road (DS2) predicted 79 significant adverse noise effects, of which eight are significant

adverse noise effects about SOAEL. The noise effects of the bypass, along with the environmental impact and additional cost outlined in the Junction 24, Inworth Road and Community Bypass Technical Report [APP-095], has resulted in the bypass being discounted.

The Applicant has also considered the more minor interventions requested by Essex County Council, some of which are similar to the options the Applicant has investigated above. The expected effect of reducing the speed limit on Oak Road to 20mph and providing improved signage to direct traffic away from Oak Road would be the same as the scenario modelled in 'Closure of Kelvedon Road and Interventions on Oak Road' above and would result in the same traffic and noise impacts.

The existing nature of Oak Road is narrow with cars parked on one side of the road. In some places, the road narrows to one lane for a short length. Further narrowing of the entries to Oak Road at the eastern and western ends, and priority narrowing west of Bishops Lane and east of Cedars Avenue, is not likely to impact driver journey decision making as similar constraints already exist on this road.

The Applicant does not wish to influence additional traffic to route towards Oak Road and/or the existing double mini-roundabout in Tiptree, in order to avoid the significant SOAEL and traffic impacts outlined above.

## 2.17.2

### Examiner's Question to the Applicant

In response to the predicted increase in traffic through Boreham, please confirm which of the traffic mitigation measures proposed by IPs at the ISH [REP3-012] are going to be incorporated in the Proposed Development. For any measures proposed by the IPs not to be incorporated, please detail and justify the reasons for their exclusion.

### Applicant's Response

The Applicant maintains that the modelled compliance with the proposed speed limit changes along Main Road does not warrant further mitigation measures beyond signage. However, the Applicant recognises concerns expressed at the ISH regarding the impact of additional traffic, and the reasons that additional measures were proposed by the Interested Parties. It is therefore proposed that an

additional signalised pedestrian crossing in the vicinity of the Boreham Co-op, and soft measures such as locally designed signage, are to be provided as part of A12 scheme as an enhancement to help reinforce this speed limit change. The crossing will also provide a community benefit.

Further measures, such as kerb realignment and road markings were suggested and are under review to establish whether these would be likely to provide a road safety benefit. Some measures of this type such as kerb build-outs can present safety hazards to cyclists, and this will be reviewed as part of the design development in the detailed design stage.

The above measures were discussed with Essex County Council on 22 March 2023.

Average Speed Camera enforcement through Boreham was proposed by a number of Interested Parties. The existing speed profile is already closer to what one would expect of a 30mph limit rather than the current 40mph limit. The reduction in the posted speed limit is expected to reduce this further, and on this basis the Applicant does not believe that there is a case for requiring the introduction of Average Speed Enforcement cameras on this route. Additional information on this location was provided in the Applicant's Response to Relevant Representations – Rev 2 [REP1-002]. This includes recording that “The existing average speed observed in Boreham in non-peak hours is 32mph.”

## 2.17.3

### **Examiner's Question to the Applicant**

Please provide a summary assessment of the uncertainties in the traffic modelling. This should include an easily understandable metric for quantifying the different uncertainties (numeric or other quantification) to enable the ExA to understand the areas in which the modelling is least reliable and the reasons for the uncertainty.

## Applicant's Response

A traffic model requires many inputs, spanning such areas as observed traffic counts through to GDP forecasts and projections of licence holders in the future, each of which has their own confidence limits attached. As such, there is no single measure of uncertainty for a traffic model.

As described in chapter 6 of the Combined Modelling and Appraisal Report [APP-261], a base year traffic model was developed to represent traffic conditions as they existed in 2019. A process known as 'validation' was used to ensure that the model represents those conditions with a sufficient degree of accuracy. Department for Transport traffic modelling guidance (Transport Analysis Guidance Unit M3.1) provides strict criteria on how closely the model should match those observed base year traffic conditions. For example, on a set of pre-defined journey routes through the model, the criteria states that modelled journey times should be within 15% of observed journey times on at least 85% of those routes. In the A12 model, this criteria was passed for 89% of routes in the AM peak, 97% in the Interpeak, and 87% in the PM peak.

Several similar criteria exist for traffic flows, for example where modelled flows should be within 15% of observed traffic counts in at least 85% of cases (although different criteria exist for roads with very high or low traffic flows). The A12 traffic model met these various criteria, with further information provided in Chapter 7 of the Combined Modelling and Appraisal Report.

While the accuracy of the base year traffic model can be quantified as above, the uncertainties around the predictions of future traffic flows are more difficult to quantify. These are uncertainties that are common to all traffic model forecasts, as highlighted in Transport Analysis Guidance Unit M4. These uncertainties include:

- National uncertainties around travel behaviour (e.g. due to population growth and the performance of the economy, changes in fuel prices, changes in travel behaviours such as the level of homeworking, changes in licence holding among the population and changes in travel behaviour due to new technology).
- Local uncertainties around where housing and employment developments will be built in the future and on how many car trips each development will generate, and around the level of public transport provision.



- Uncertainty about driver behaviour when traffic conditions change. For example, if congestion increases, to what extent would drivers prefer to sit in a queue compared to finding alternative routes.

While acknowledging the inherent uncertainty within forecasting the future, the Applicant's core traffic model represents the "most likely" predictions of future traffic levels. The Applicant has used standard traffic modelling guidance and model parameters, growth factors provided by the Department for Transport, and information on local housing and employment developments provided by local planning authorities.

There is no simple metric to quantify the uncertainties described above. Instead, some of the impacts of uncertainty can be understood through scenario-based testing of the outputs. By varying some of the inputs it can be shown whether the outputs of the model, and therefore a scheme's impacts, are sensitive to these assumptions.

As described in its response to comment REP2-039-003 in the Applicant's Comments on Written Representations [REP3-009], alternative traffic models were produced to represent "high growth" and "low growth" in future traffic demand for the purpose of the Applicant's economic appraisal. These alternative traffic model scenarios were used to understand the impact of such alternative predictions on the value for money of the proposed scheme. A summary of the results of these economic assessments is provided in Section 12.1 of the Combined Modelling and Appraisal Report [APP-261].

It should be noted that these alternative scenarios model the impact of higher and lower traffic flows across the entire model area, both with and without the proposed scheme in place. It is not an assessment of the impact of the proposed scheme itself being higher or lower than the core scenario.

These alternative scenarios were used for the economic assessment only. The approach to the environmental impact assessment needs to be proportionate in relation to the nature of the potential impacts on local communities and the environment. Consequently, the assessment for noise and air quality is based on the output of the traffic model for the most likely traffic scenario only and not for a range of modelled scenarios.

To conclude, there are inherent certainties attached to traffic models which are known and outlined above. However, the approach taken by the Applicant follows national guidance and provides the required level of certainty needed to assess the proposed scheme, inform the design decisions taken and ensure that those decisions and the effects of the scheme are robustly assessed.

## 18. Water Environment

### 2.18.1

#### Examiner's Question to the Applicant

In relation to proposed works along Inworth Road, what provision would be made within the Proposed Development to address existing flooding issues, as well as any additional flood risk that may arise from the creation of additional impermeable areas?

#### Applicant's Response

The assessment undertaken in relation to the proposed works along Inworth Road has followed the flood risk management approach as outlined in the proposed scheme Flood Risk Assessment (FRA) [APP-162]. The FRA sets out how the proposed scheme would meet the requirements of the National Networks National Policy Statement (NNNPS) for the proposed scheme to remain operational and safe for road users. The FRA assesses the impact from existing flood risk and includes assessment of any additional flood risk as a result of the proposed scheme.

The design of flood mitigation measures has considered flood events up to a 1% (1 in 100 year) Annual Exceedance Probability plus allowance for climate change, to address existing flood risk and ensure the proposed scheme would remain operational and safe.

The proposed works along Inworth Road include improvement works required for the highway drainage (including requirements for attenuation storage ponds) as explained in the Surface Water Drainage Strategy [APP-174]. The proposed scheme highway drainage and flood risk mitigation proposals along the Inworth Road are shown on Sheet 20 of 21 of the Drainage and Surface Water Plan, Part 2 [APP-034]. A more detailed assessment, currently being undertaken as part of detailed design process, will be used to inform, and if necessary, refine the design of the mitigation included in the proposed scheme.

## 2.18.2

### Examiner's Question to the Applicant

Given that run-off from the Proposed Development is likely to contain contaminants, how have the proposed SuDS features been designed to ensure the removal of these contaminants before the water is discharged back into the water environment? What monitoring is proposed to ensure water quality is protected?

### Applicant's Response

Water quality assessments have been undertaken for the proposed scheme in accordance with the National Highways' (previously Highways England) Water Risk Assessment Tool (HEWRAT) and the standards outlined in the Design Manual for Roads and Bridges (DMRB), with specific reference to DMRB LA 113: Road Drainage and the Water Environment (RDWE) Revision 1, to assess the potential risk to the water quality of receiving waterbodies and provide recommendations for mitigation measures as appropriate. A report with detailed findings of the HEWRAT water quality assessment is contained within the Water Quality Assessment Report (Environmental Statement Appendix 14.1 [APP-158]). The Water Quality Assessment Report concludes that between all single and cumulative HEWRAT routine surface water runoff assessments (simple and detailed) undertaken, the proposed highway drainage design and the mitigation measures that are incorporated within it, i.e. sustainable drainage system (SuDS) features, the overall impact to receiving surface waters during operation of proposed scheme is anticipated to be 'Not Significant'.

The proposed types of SuDS features that will provide mitigation of water quality contaminants for each outfall is shown in Annex E of the Water Quality Assessment Report [APP-158] and summarised in Table 11.1 to 11.3 of the Surface Water Drainage Strategy [APP-174]. In addition to the water quantity and biodiversity benefits, the inherent nature of the proposed SuDS features used on the proposed scheme, namely attenuation ponds, swales or vegetated drainage ditches and filter drains, would provide treatment of surface water runoff through settlement prior to discharge to the receiving watercourse. The surface water treatment benefit of these SuDS features is described in paragraph 11.1.3 of the Surface Water Drainage Strategy [APP-174]. It should be noted that for all the highway drainage catchments across the proposed scheme, silt traps in chambers and gullies would also provide a degree of pollution control (i.e. an element of solid particulate matter retention).

The detailed design of SuDS will follow the DMRB LA 113 requirements that also refer to CIRIA 753 (The SuDS Manual) guidance to ensure removal of contaminants to a point at which they are assessed not to have significant impact on the environment. This detailed process of designing SuDS features will be undertaken through detailed design stage.

A surface water monitoring plan is being prepared and must be included as part of the second iteration Environmental Management Plan, as per commitment RDWE 2 in the Register of Environmental Actions and Commitments [APP-185]. This will allow analysis of water quality before, during and after the construction of the proposed scheme from appropriate downstream surface water receptors across the proposed scheme.

### 2.18.3

#### Examiner's Question to the Applicant and ECC

In their LIR [REP2-005] ECC referred to several catchments that would not be receiving any treatment prior to discharge. • Please can ECC clarify where these locations are; and • Can the Applicant explain and justify their approach to these locations.

#### Applicant's Response

The approach to the assessment and mitigation of surface water discharges from the proposed scheme is outlined in the Water Quality Assessment Report [APP-158]. Annex E includes treatment proposed for each catchment. This detailed numerical assessment considers modelled future traffic flow, pollutant loading from the traffic flow, characteristics of the received water receptor and then considers the likely pollutant loading against environmental quality standards set by the UK TAG for copper and zinc.

As a result of the detailed assessment (method outlined in DMRB LA 113) that was applied to the proposed scheme it was concluded that no water quality treatment would be required for 45 of the total of 92 outfalls within the proposed scheme based on the HEWRAT model, the characteristics of the receiving surface watercourse (or groundwater) and required Environmental Quality Standards. In 29 of the 45 catchments where treatment has not been deemed necessary based on the assessment, the proposed scheme has included mitigation such as a retention ponds as an enhancement (see Annex E to the Water Quality Assessment Report [APP-158] for the specific proposals for each catchment). These catchments and associated outfalls can be seen on the Drainage and Surface Water

Plan Part 1 [APP-033] and Part 2 [APP-034].

Of the remaining sixteen locations:

- Three catchments (S1-OU14, S2-OU17, S3-IWR-OU1) may be combined with an adjacent catchment where the proposed scheme has included mitigation. As stated above, this is not necessary, but this will be reviewed through the detailed design process and may be provided as an enhancement.
- Seven catchments (S1-OU10, S1-OU10A, S2-OU3, S2-OU15D1, S3-OU18, IWR-OU4 and IWR-OU6) are constrained by adjacent urban areas and/or proximity to the fluvial floodplain which prevent mitigation being embedded in the proposed scheme design. It is also noted that two of these catchments (S1-OU10A and S2-OU15D1) are very small catchments which make it less feasible to provide mitigation or enhancement. For these reasons, these seven locations will not be considered for any further assessment of opportunities for enhancement measures.
- Six catchments (S1-OU15, S2-OU5, S2-OU24, S2-OU26, S2-OU27, S3-OU15) will be reviewed through the detailed design process to identify potential enhancement opportunities through the provision of treatment measures.

Further opportunities for the incorporation of enhancement measures at these outfalls are being considered through the detailed design process to include treatment as an enhancement.

## 2.18.4

### Examiner's Question to the Applicant

For the area where increased flood depths within the river channel downstream of the Rivenhall Brook crossing are predicted, the Applicant has confirmed that the river channel is within third party ownership and that they are in the process of engaging with the landowner to obtain permission for the increase in flood depths as a result of the scheme. Can the Applicant provide an update on the progress of this agreement, along with any other locations where such agreements are required? Can the Applicant comment on whether these agreements are likely to be in place by the end of the Examination?

## Applicant's Response

The area of increased water levels within the river channel on the Rivenhall Brook was discussed as part of a meeting between the Applicant and the landowner on 21 March 2023. During this meeting, new information was provided by the landowner with respect to the flood risk in this area, suggesting that it was at greater risk of flooding in the baseline scenario than previously considered and as reported in the FRA [APP-162]. The Applicant is currently assessing the implications of the new information provided.

There are two other locations where the Environment Agency has indicated similar agreements with landowners should be sought.

- Upstream of the A12 crossing on the River Blackwater, the Applicant has noted that the change in risk displayed in Plate 7.8 of the Flood Risk Assessment [APP-162] is a result of an error in the information displayed in that document. There is no adverse impact identified outside the Order Limits and no requirement to inform the landowner of a change in flood risk. A corrected version of this figure has been prepared and is provided in Appendix A to this submission and will be provided to the Environment Agency.
- The other area where similar agreement will be sought with the landowner relates to the River Blackwater floodplain east of Witham (as shown in Plate 7.4 of the Flood Risk Assessment [APP-162]). Materials to present to the landowner have been prepared and will be shared the landowner for their consideration in advance of Deadline 5.

The Applicant expects to have the agreements in place before the end of the examination period and will provide a further update at Deadline 5.

## 2.18.5

### Examiner's Question to the Applicant and the EA

From submissions to the Examination, it appears that there is a fundamental difference of opinion between the EA and the Applicant with regards to the proposed use of culverts and the design of the extensions to bridges on the 6 new and extended main river crossings. Can the parties explain if/how they are working towards resolving this? Is it possible that this will remain an outstanding area

of disagreement at the close of Examination? In answering this question, we would refer the parties to Paragraph 5.227 of the NNNPS. In any further submissions, it would be helpful to reference this paragraph.

### **Applicant's Response**

The EA has stated that: "We look to see open span bridges used wherever possible instead of culverts, unless it is demonstrated that culverting is both necessary and the only reasonable and practicable alternative. Considering the culverts proposed for new crossings of Rivenhall Brook and Domsey Brook, in each case it is not clear why a culvert has been proposed rather than an open-span bridge."

The basis for this is identified by the EA to be concern relating to the potential impact of the culverts proposed within the Scheme acting as a barrier to fish, eel and/or mammal movement.

The EA has accordingly sought from the Applicant an assessment of the alternative options considered to justify the inclusion of culverts within the scheme.

The Applicant does not consider that there is a justification for such a comparative exercise in either law or policy.

As a matter of law, a decision maker can choose to have regard to a potential alternative to a scheme where the scheme is identified as having conspicuously harmful effects and where the scheme seeks to overcome such harm by reference to countervailing public interest benefits: *Trusthouse Forte v Secretary of State for the Environment* (1987) 53 P & CR 293 at 299-300

In *R (Mount Cook Land Limited) v Westminster City Council* [2017] PTSR 116 at [30] the court explains that, in the absence of conflict with planning policy and/or other planning harm, the relative advantages of alternative uses on the application site or of the same use on alternative sites are normally irrelevant. In those "exceptional circumstances" where alternatives might be relevant, vague or inchoate schemes, or which have no real possibility of coming about, are either irrelevant, or where relevant, should be given little or no weight.

The Applicant has assessed the likely significant effects of culverting in Chapter 14 of the Environmental Statement: Road Drainage and the Water Environment [APP-081 [paragraph ref 14.11.39 and Table 14.16; and paragraph ref 14.13.1 to 14.13.17]]. This concludes that it will not give rise to any significant residual effects [paragraph ref 14.13.18; Table 14.19]. The Applicant has not been provided with any assessment by the EA which demonstrates that the proposed culverts would be likely to have significant residual effects.

Since the Applicant's assessment does not identify any "conspicuously harmful effects" arising from the proposed culverts, no duty arises as a matter of law for the Secretary of State to consider alternative proposals to them.

The only other means by which the Secretary of State could be required to consider alternatives would be if this was required by adopted policy. The Applicant is not aware of any such policy requirement in the NPSNN, the NPPF or the relevant adopted developments. It is notable that the EA has not identified any adopted policy requirement to consider alternatives to the proposed culverts.

The Applicant is aware that it was established in *Sainsburys v First Secretary of State* [2007] EWCA Civ 1083 that where a development is determined on its own merits to be acceptable in policy terms, there is no duty upon the decision maker to consider whether a yet more acceptable alternative can be identified.

The Applicant submits that since the culverts do not give rise to any likely significant impacts they are acceptable in policy terms and do not have to be justified further.

As such, the Applicant considers that there is no legal or policy requirement for the Secretary of State to consider alternatives to the culverts proposed. The EA position is thus not founded in law or policy and is unjustified.

Even if exceptional circumstances do arise (which is not accepted) the EA has not identified the design of any alternative water crossing which it says should have been assessed. Applying the approach in *Mount Cook*, the EA's "vague or inchoate" assertions regarding



alternative schemes should in any event be given little if any weight.

The Applicant has had regular meetings with the EA over a significant period of time to discuss this and other issues. At the next meeting, a date for which is to be arranged before deadline 5, the Applicant intends to seek clarity from the EA as to:

- a) The evidence which the EA relies upon to establish that the proposed culverts give rise to conspicuously harmful effects, if any;
- b) The basis on which the EA contends that there is a legal duty upon the Secretary of State to consider alternatives to the proposed culverts, if indeed it does so contend;
- c) The basis on which the EA contends that there is a policy based duty upon the Secretary of State to consider alternatives to the proposed culverts, if indeed it does so contend (this includes identifying precisely the adopted policy documents relied upon where this duty is stated);
- d) The design of the water crossings which the EA considers should have been assessed in sufficient detail to enable the Applicant to assess the likely significant impacts (positive and negative) of such alternative proposals.

The Applicant is keen to have clarity from the EA in relation to these matters as quickly as possible and to reach further agreement if this can be achieved.

In the light of the above, if the EA continues to maintain that there is a duty upon the Secretary of State to consider alternatives to the proposed culverts, it is possible that agreement with the EA concerning the proposed culverts may not be reached before the end of examination. Should this be the case then the Applicant will respond with appropriate evidence/submissions relating to the EA's concerns in due course. These will address the implications of paragraph 5.227 of the NPSNN.

## 2.18.6

### Examiner's Question to the Applicant

In relation to the use of culverts, focusing upon those locations where their use is an issue for the EA, can the Applicant explain what alternatives were considered and why these were discounted?

### Applicant's Response

The EA has stated that: "We look to see open span bridges used wherever possible instead of culverts, unless it is demonstrated that culverting is both necessary and the only reasonable and practicable alternative. Considering the culverts proposed for new crossings of Rivenhall Brook and Domsey Brook, in each case it is not clear why a culvert has been proposed rather than an open-span bridge."

The basis for this is identified by the EA to be concern relating to the potential impact of the culverts proposed within the Scheme acting as a barrier to fish, eel and/or mammal movement.

The EA has accordingly sought from the Applicant an assessment of the alternative options considered to justify the inclusion of culverts within the scheme.

The Applicant does not consider that there is a justification for such a comparative exercise in either law or policy.

As a matter of law, a decision maker can choose to have regard to a potential alternative to a scheme where the scheme is identified as having conspicuously harmful effects and where the scheme seeks to overcome such harm by reference to countervailing public interest benefits: *Trusthouse Forte v Secretary of State for the Environment* (1987) 53 P & CR 293 at 299-300

In *R (Mount Cook Land Limited) v Westminster City Council* [2017] PTSR 116 at [30] the court explains that, in the absence of conflict

with planning policy and/or other planning harm, the relative advantages of alternative uses on the application site or of the same use on alternative sites are normally irrelevant. In those “exceptional circumstances” where alternatives might be relevant, vague or inchoate schemes, or which have no real possibility of coming about, are either irrelevant, or where relevant, should be given little or no weight.

The Applicant has assessed the likely significant effects of culverting in Chapter 14 of the Environmental Statement: Road Drainage and the Water Environment [APP-081 [paragraph ref 14.11.39 and Table 14.16; and paragraph ref 14.13.1 to 14.13.17]]. This concludes that it will not give rise to any significant residual effects [paragraph ref 14.13.18; Table 14.19]. The Applicant has not been provided with any assessment by the EA which demonstrates that the proposed culverts would be likely to have significant residual effects.

Since the Applicant’s assessment does not identify any “conspicuously harm effects arising from the proposed culverts, no duty arises as a matter of law for the Secretary of State to consider alternative proposals to them.

The only other means by which the Secretary of State could be required to consider alternatives would be if this was required by adopted policy. The Applicant is not aware of any such policy requirement in the NPSNN, the NPPF or the relevant adopted developments. It is notable that the EA has not identified any adopted policy requirement to consider alternatives to the proposed culverts.

The Applicant is aware that it was established in *Sainsburys v First Secretary of State* [2007] EWCA Civ 1083 that where a development is determined on its own merits to be acceptable in policy terms, there is no duty upon the decision maker to consider whether a yet more acceptable alternative can be identified.

The Applicant submits that the since the culverts do not give rise to any likely significant impacts they are acceptable in policy terms and do not have to be justified further.

As such, the Applicant considers that there is no legal or policy requirement for the Secretary of State to consider alternatives to the

culverts proposed. The EA position is thus not founded in law or policy and is unjustified.

Even if exceptional circumstances do arise (which is not accepted) the EA has not identified the design of any alternative water crossing which it says should have been assessed. Applying the approach in Mount Cook, the EA's "vague or inchoate" assertions regarding alternative schemes should in any event be given little if any weight.

The Applicant has had regular meetings with the EA over a significant period of time to discuss this and other issues. At the next meeting date for which is to be arranged before deadline 5, the Applicant intends to seek clarity from the EA as to:

- a) The evidence which the EA relies upon to establish that the proposed culverts give rise to conspicuously harmful effects, if any;
- b) The basis on which the EA contends that there is a legal duty upon the Secretary of State to consider alternatives to the proposed culverts, if indeed it does so contend;
- c) The basis on which the EA contends that there is a policy based duty upon the Secretary of State to consider alternatives to the proposed culverts, if indeed it does so contend (this includes identifying precisely the adopted policy documents relied upon where this duty is stated);
- d) The design of the water crossings which the EA considers should have been assessed in sufficient detail to enable the Applicant to assess the likely significant impacts (positive and negative) of such alternative proposals.

The Applicant is keen to have clarity from the EA in relation to these matters as quickly as possible and to reach further agreement if this can be achieved.

In the light of the above, if the EA continues to maintain that there is a duty upon the Secretary of State to consider alternatives to the proposed culverts, it is possible that agreement with the EA concerning the proposed culverts may not be reached before the end of examination. Should this be the case then the Applicant will respond with appropriate evidence/submissions relating to the EA's in due course. These will address the implications of paragraph 5.227 of the NPSNN.

The Applicant has sought to minimise the impacts upon the water environment and has adopted appropriate mitigation measures for crossings in compliance with the National Policy Statement for National Networks (NNNPS).

## **Appendix A - Question 2.18.4 - Corrected Flood Risk Assessment Plates 7.7 and 7.8**

# **A12 Chelmsford to A120 widening scheme**

**TR010060**

## **Appendix A - Question 2.18.4 - Corrected Flood Risk Assessment Plates 7.7 and 7.8**

Planning Act 2008

Infrastructure Planning (Examination Procedure)

Regulations 2010

Appendix A – 9.41 Applicant’s Responses to ExQ2

April 2023

Infrastructure Planning

Planning Act 2008

The Infrastructure Planning  
(Examination Procedure) Rules 2010

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

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**Appendix A - Question 2.18.4 - Corrected Flood Risk Assessment Plates  
7.7 and 7.8**

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<b>Regulation Number</b>	Rule 8(1)(k)
<b>Planning Inspectorate Scheme Reference</b>	TR010060
<b>Application Document Reference</b>	TR010060/EXAM/9.41 – Appendix A
<b>Author</b>	A12 Project Team and National Highways

<b>Version</b>	<b>Date</b>	<b>Status of Version</b>
Rev 1	April 2023	Final for Deadline 4



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**2 Updated Figure.....1**

**3 Conclusion.....1**

THIS DOCUMENT IS INTENDED TO BE APPENDIX A to TR010060/EXAM/9.41

# 1 Introduction

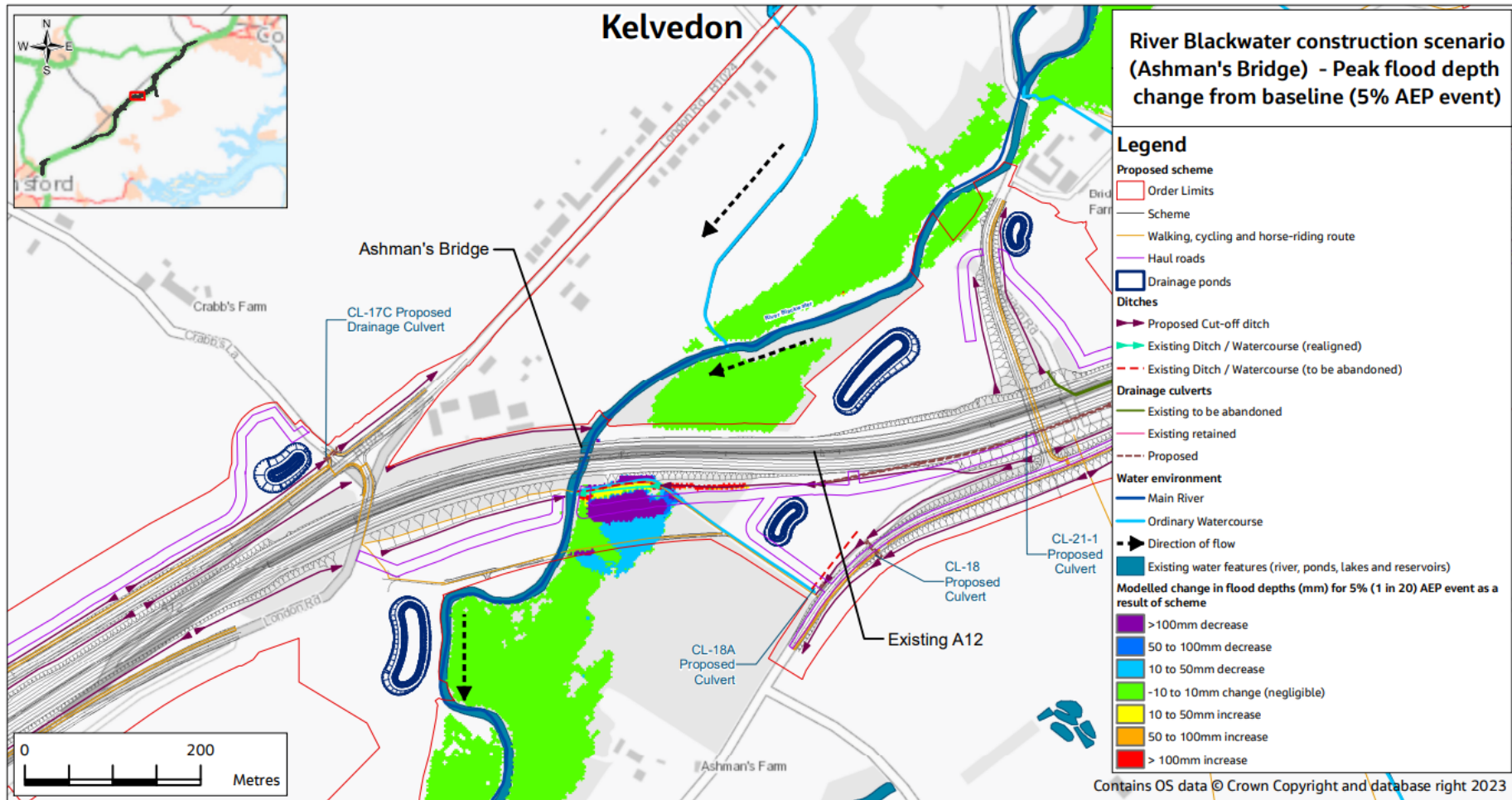
- 1.1.1 Plates 7.7 and 7.8 in Appendix 14.5 Flood Risk Assessment (FRA) of the published Environmental Statement [APP-162] had previously included incorrect with-scheme modelling data (including both the permanent proposed scheme and the haul road to represent the worst-case scenario) for the 5% (1 in 20) Annual Exceedance Probability (AEP) and 1% (1 in 100) AEP events.

# 2 Updated Figure

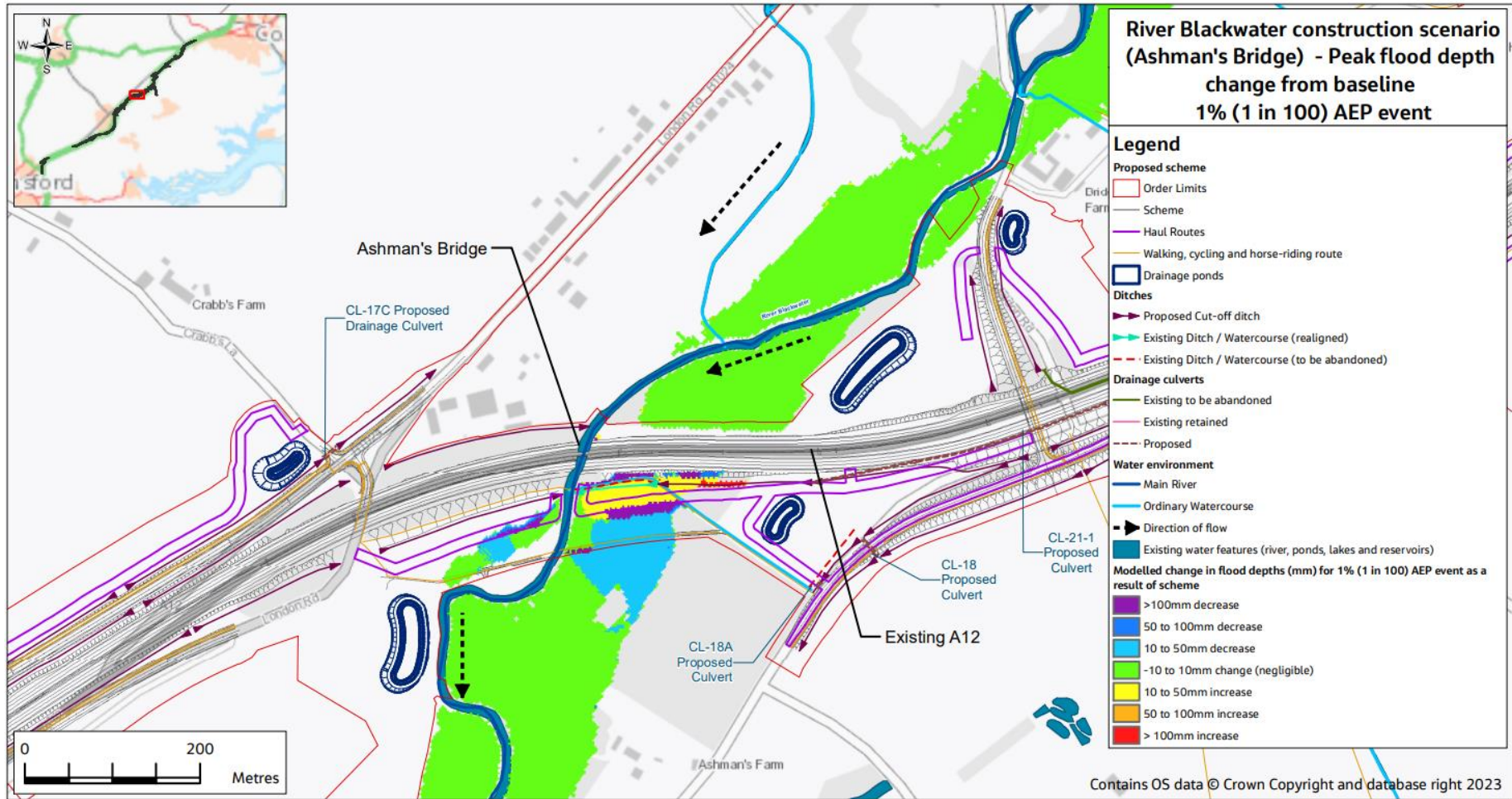
- 2.1.1 The corrected figures are shown in the enclosed updated Plates 7.7 and 7.8.

# 3 Conclusion

- 3.1.1 As shown in updated Plates 7.7 and 7.8 and as stated in the FRA, the proposed scheme (permanent works plus construction elements) results in negligible impact (less than 10mm change in flood levels) on flood risk. Therefore, it is considered that no temporary flood mitigation would be required in this location.



**Updated Plate 7.7 River Blackwater floodplain at Ashman's Bridge – modelled change in flood levels as a result of the proposed haul road and piling rig (5% (1 in 20) AEP event)**



**Updated Plate 7.8 River Blackwater floodplain at Ashman's Bridge – modelled change in flood levels as a result of the proposed haul road and piling rig (1% (1 in 100) AEP event)**