

Lower Thames Crossing

9.89 Responses to the Examining Authority's ExQ1 Appendix H – 12. Physical Effects of Development & Operation

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1 Introduction

1.1 Introduction

1.1.1 This document has been prepared by the Applicant to set out its responses to the Examining Authority's (ExA's) first round of written questions [[PD-029](#)]

1.1.2 These can be found in Tables set out under the following headings:

- a. Climate Change and carbon emissions (found in Appendix A)
- b. Consideration of alternatives (Found in Appendix A)
- c. Traffic and transportation (Found in Appendix B)
- d. Air quality (Found in Appendix C)
- e. Geology and soils (Found in Appendix D)
- f. Waste and materials (Found in Appendix D)
- g. Noise and vibration (Found in Appendix E)
- h. Road Drainage, water environment and flooding (Found in Appendix F)
- i. Biodiversity (Found in Appendix G)
- j. Physical effects of development and operation (Found in Appendix H)
- k. Social, economic and land-use considerations (Found in Appendix I)
- l. Draft Development Consent Order, planning obligations, agreements and adequacy of security (Found in Appendix J)
- m. The acquisition and temporary possession of land and rights (Found in Appendix J)
- n. General overarching questions (Found in Appendix J)

2 Responses to the Examining Authority's ExQ1 12

PINS ID	External Stakeholder (where applicable)	Question / Response
ExQ1_Q12.1.1	N/A	<p>Planning Statement Clarification</p> <p>Paragraph 6.5.216 of the Planning Statement [APP-495] states that "Table 6.10 within ES Chapter 6: Cultural Heritage provides a summary of cultural heritage significant effects." Table 6.10 does not exist in Application document 6.1, the Applicant should therefore correct this inaccuracy and advise the ExA of the correct reference point.</p> <p>Response:</p> <p>The Applicant would like to thank the Examining Authority for identifying this inaccuracy within the Planning Statement [APP-495].</p> <p>Paragraph 6.5.216 of the Planning Statement [APP-495] should read:</p> <p><i>'Table 6.7 within ES Chapter 6: Cultural Heritage provides a summary of heritage significant effects.'</i></p> <p>For completeness, this has been added to the Errata Report [Document Reference 1.6 (4)] submitted at this deadline (Deadline 4).</p>
ExQ1_Q12.1.2	N/A	<p>Cultural Heritage Chapter 6 Clarification</p> <p>Paragraph 6.6.9 of ES Chapter 6 – Cultural Heritage (v.2) [AS-044] states that "Those assets that would be completely removed by construction of the Project are listed in the Assessment Tables (Appendix 6.10, Section 1.9 (Application Document 6.3))." There is no section 1.9 in Appendix 6.10 of Application Document 6.3 [AS-053]; the Applicant should therefore correct this inaccuracy and advise the ExA of the correct reference point.</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>The Applicant would like to thank the Examining Authority for spotting this inaccuracy. The Applicant has re-checked this cross reference in Environmental Statement (ES) Chapter 6: Cultural Heritage [AS-044] and this has been updated in the version submitted at this deadline, alongside this response, ES Chapter 6: Cultural Heritage [Document Reference 6.1 Chapter 6 (3)]. The correct cross reference is '(Appendix 6.10, Tables 1.4, 1.5, 1.6, 1.13 and 1.14 (Application Document 6.3))'.</p>
ExQ1_Q12.1.3	N/A	<p>Cultural Heritage Chapter 6 Clarification</p> <p>There are multiple inaccuracies in ES Chapter 6 – Cultural Heritage (v.2) [AS-044] where it cross refers to specific Tables within Chapter 4: EIA Methodology (Application Document 6.1) [APP-142]. Some examples are below: - Paragraph 6.3.74 states that “the significance of effect is determined in accordance with Table 4.4 of Chapter 4: EIA Methodology. An effect of moderate adverse significance or higher is considered to constitute a significant effect (Table 4.5 of Chapter 4: EIA Methodology).” There is no Table 4.5 in Chapter 4: EIA Methodology [APP-142] - Paragraph 6.6.2 states that “the assessment considers the value/sensitivity as presented in Table 6.3 and impact magnitude criteria based on DMRB LA 104 (Highways England, 2020b), and the significance of effects has been determined in accordance with the matrix provided in Table 4.4 of Chapter 4: EIA Methodology and through the use of professional judgement.” The significance of effect matrix is Table 4.3 (and not Table 4.4); - Paragraph 6.6.4 states that “baseline information for the assets considered here is presented in Section 6.4 above and in more detail within the DBA (Appendix 6.1, Application Document 6.3). The assessment considers the value as presented in Table 6.4 of this chapter and the impact magnitude criteria set out in Table 4.3 of Chapter 4: EIA Methodology (Application Document 6.1).” The impact of magnitude criteria is set out in Table 4.2 (and not Table 4.3). In addition to the examples above, the Applicant should review all cross references to Chapter 4: EIA Methodology [APP-142] within ES Chapter 6 – Cultural Heritage (v.2) [AS-044] and make corrections. An updated clean and tracked changes version of ES Chapter 6 – Cultural Heritage shall be submitted at Deadline 4.</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>The Applicant would like to thank the Examining Authority for identifying this.</p> <p>The Applicant has re-checked Environmental Statement (ES) Chapter 6 Cultural Heritage [AS-044] for all cross references to ES Chapter 4: EIA Methodology [APP-142], and the incorrect cross-references to the tables have been updated in the tracked and cleaned versions of this document, submitted at Deadline 4 (ES Chapter 6: Cultural Heritage [Document Reference 6.1 Chapter 6 (3)]).</p>
ExQ1_Q12.1.4	N/A	<p>Categorisation of Harm</p> <p>Paragraph 6.3.76 of ES Chapter 6 – Cultural Heritage (v.2) [AS-044] sets out the applicant’s position in terms of where the threshold for ‘Substantial Harm’ is met (being total loss of an asset). It adds that in DMRB LA 104 terms this would be described as a major adverse impact and large or very large adverse significance of effect. Can the Applicant clarify its position on what level of impact/significance of effect amounts to “less than substantial harm”? In the same paragraph of Chapter 6, the Applicant states that “the assessment in Section 6.6 of this chapter identifies whether an effect is significant in EIA terms and whether it constitutes substantial harm or less than substantial harm to a designated, or equivalent value, heritage asset.” Table 6.6 within Chapter 6 seemingly identifies those heritage assets that would experience substantial harm, yet there is no corresponding Table identifying heritage assets that would experience less than substantial harm. The Applicant shall provide a corresponding table.</p> <p>Response:</p> <p>The Applicant considers ‘less than substantial harm’ to be experienced by any designated asset, or non-designated heritage asset of archaeological interest that is demonstrably of equivalent significance to a Scheduled Monument, where the magnitude of impact is either a moderate, minor or negligible adverse, leading to a large, moderate or slight effect. Designated assets can only experience substantial harm, less than substantial harm or no harm. ‘No harm’ can only be used where there is no change to the designated heritage asset or its setting.</p> <p>A table setting out the heritage assets that would experience less than substantial harm has been provided in Annex A.</p>

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ExQ1_Q12.1.5	N/A	<p>Categorisation of Harm</p> <p>Paragraph 6.6.9 of ES Chapter 6 – Cultural Heritage (v.2) [AS-044] states that “The Project would result in substantial harm (in NPSNN terms) to a number of designated heritage assets following mitigation, identified in the assessment text below and summarised in Table 6.6 of this chapter. Where the Project would result in less than substantial harm to a heritage asset following mitigation, this has not been stated explicitly in the text.” Why has the Applicant not explicitly identified the assets that are due to experience less than substantial harm? Paragraph 5.134 of the NPSNN 2014 and Paragraphs 199 and 202 of the National Planning Policy Framework are relevant considerations stating that the harm should be weighed against the public benefits. The assets experiencing a degree of less than substantial harm (with or without mitigation) therefore need explicitly documenting. The Applicant is requested to provide this information. The Applicant may wish to combine its response with Q12.1.4.</p> <p>Response:</p> <p>The Applicant notes that every designated asset experiencing less than substantial harm is described and assessed within Environmental Statement Chapter 6: Cultural Heritage [AS-044], though agrees that these can helpfully be drawn out in a specific table.</p> <p>A table setting out the heritage assets that would experience less than substantial harm has been provided in Annex A.</p>
ExQ1_Q12.1.6	N/A	<p>Methodology – Significance of Effects</p> <p>Paragraph 4.5.21 of ES – Chapter 4 – EIA Methodology [APP-142] states that “significance of effects have been determined taking into account the identified value (sensitivity) and impact magnitude, using a matrix approach as set out in DMRB LA 104 (Highways England, 2020c). This matrix is reproduced in Table 4.3 and descriptions of the significance categories in the matrix are provided in Table 4.4.” In table 4.4 the significance category ‘slight’ is classed as an effect that is not material to decision making. These tables have been used to inform the cultural heritage assessment contained in ES Chapter 6 (v.2) [AS-044]. However, ‘slight’ adverse significance of effects to heritage assets in the low, medium, high and very high value heritage asset categories would most likely be classed in national planning policy terms as “less than substantial harm” (see judgment James Hall v City of Bradford ([2019] EWHC 2899 (Admin)) which ruled</p>

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		<p>that even minimal harm must fall to be considered within the category of less than substantial harm). As noted in Q12.1.5 above, less than substantial harm needs to be weighed against the public benefits of the proposal. The Applicant is asked to explain and justify why it is considered appropriate to disregard 'slight' adverse effects to designated heritage assets as not material to the decision making process when there would be clear conflict with national policy that gives weight to those impacts?</p> <p>Response:</p> <p>The Applicant considers that a 'slight' adverse effect to a designated heritage asset is less than substantial harm in accordance with James Hall v City of Bradford ([2019] EWHC 2899 (Admin)). The Applicant has not disregarded 'slight' adverse effects to designated heritage assets as not material to the decision-making process. It is confirmed that all impacts and effects have been taken into account in the assessment in paragraph 6.6.3 of Environmental Statement (ES) Chapter 6: Cultural Heritage [AS-044]:</p> <p><i>'All impacts and effects on heritage assets are summarised in Table 6.7 and Table 6.8 of this chapter, apart from those that would experience no change.'</i></p> <p>The Applicant, in response to ExQ1_Q12.1.3, recognises that there are cross-referencing errors in ES Chapter 6: Cultural Heritage [AS-044]. The errors include references to Table 4.4 of ES Chapter 4: EIA Methodology [APP-142] in paragraphs 6.6.2 and 6.6.4 of ES Chapter 6: Cultural Heritage [AS-044]. Both of these references to Table 4.4 should be references to Table 4.3: Significance Matrix of ES Chapter 4: EIA Methodology. Therefore, the significance category and typical descriptions in Table 4.4 of ES Chapter 4: EIA Methodology, do not apply.</p> <p>The updated corrections to references in ES Chapter 6: Cultural Heritage, have been provided at this deadline (Deadline 4) [Document Reference 6.1 Chapter 6 (3)].</p>
ExQ1_Q12.1.7	N/A	<p>Methodology – Value of Heritage Assets</p> <p>Paragraph 5.131 of the NPSNN 2014 states that the designated heritage assets of the highest value comprise World Heritage Sites, Scheduled Monuments, Grade I and II* Listed Buildings, Registered Battlefields and Grade I and II* Registered Parks and Gardens. The Applicant is requested to explain why it has only given a 'high value' and not a 'very high value' to Grade I and II* Listed Buildings and to the Grade II* Cobham Hall Registered Park and Garden? Heritage Value Table 6.3 contained in ES Chapter 6 (v.2) [AS-044] is clearly at odds with Paragraph 5.131 of the NPSNN 2014. The Applicant is also asked to advise</p>

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		<p>whether the underestimate of the value of such assets could affect the overall magnitude of impact and significance of effect assigned to such assets as a result of the project, and if not, why not?</p> <p>Response:</p> <p>Very High value is a category defined in Environmental Statement Chapter 4: EIA Methodology [APP-142] Table 4.1 as ‘<i>very high importance and rarity, international scale and very limited potential for substitution</i>’. It is used infrequently in Cultural Heritage Environmental Impact Assessment (EIA) and both Very High value and High value are considered as the highest value in terms of the National Policy Statement for National Networks¹.</p> <p>As stated in the Planning Statement Appendix A [APP-496]:</p> <p><i>‘While the NPSNN divides designated heritage assets into those of ‘the highest significance’ and those which are therefore of lesser significance (value), guidelines associated with the latest version of DMRB, group these assets together as ‘high value’ regardless of their level of designation. The value of Grade II listed buildings and Registered Parks and Gardens has been assessed on a case-by-case basis, with a presumption of their being high value in DMRB terms and of equivalent value with the higher listing grades unless there is a clear reason against this. This takes a precautionary approach to avoid underrepresenting significance of effects.’</i></p> <p>The original scoping report from 2017 did not identify any heritage assets as being assessed as Very High value but, following representations from Historic England and Essex Place Services, the Applicant agreed that the international significance of Tilbury Fort (SM13) and Coalhouse Fort (SM14) should be reflected in their value that was changed from High to Very High.</p> <p>All other Scheduled Monuments, Grade I and Grade II* listed buildings and Grade II* Registered Parks and Gardens are assessed as High. This is in line with accepted best practice for EIA methodology that assesses Scheduled Monuments, Grade I and II* listed buildings and Grade I and II* Registered Parks and Gardens as being High Value. The Applicant does not believe this represents an underestimation of the value of such assets as they have been given the highest value within the methodology.</p>

¹ Department for Transport (2014). National Policy Statement for National Networks.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/387222/npsnn-print.pdf

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ExQ1_Q12.1.8	N/A	<p>Maritime Archaeology</p> <p>The draft Archaeological Mitigation Strategy and outline Written Scheme of Investigation (oWSI) [APP- 367] does not consider the river, or any marine or maritime archaeology, nor does the Application identify an inter-relationship with marine biodiversity. Whilst there is a requirement through Requirement 9 of Schedule 2 of the dDCO for the Applicant to produce a detailed archaeological written scheme of investigation, based on the outline scheme, there is no specific consideration of the river, nor any marine or maritime archaeology therein. The Applicant shall explain the strategy for dealing with potential marine or maritime archaeological material, particularly during construction of the tunnel and update the oWSI as appropriate.</p> <p>Response:</p> <p>Archaeological remains within the River Thames are considered in paragraphs 6.4.196 to 6.4.204 of ES Chapter 6: Cultural Heritage [AS-044], and at Section 5.2 of the Cultural Heritage Desk-Based Assessment [APP-351]. Additionally, some assets located within the foreshore of the River Thames have been considered, depending on their geographical location and extent, within the sections for either North of the River Thames or South of the River Thames in ES Chapter 6 (for example, Asset 412 at paragraph 6.4.240). This baseline information has informed the impact assessment in ES Chapter 6 and the mitigation set out in the draft Archaeological Mitigation Strategy and Outline Written Scheme of Investigation (AMS-OWSI) [APP-367].</p> <p>The only known archaeological asset within the Order Limits that would be impacted by construction activity in the River Thames, is the medium-value, non-designated Roman settlement (ES Chapter 6: Cultural Heritage, Asset 412) which is located in the northern foreshore intertidal zone, possibly extending inland further to the north. This is assessed to receive a permanent slight adverse effect as a result of construction of an outfall, as described at paragraph 6.6.211 of ES Chapter 6, and on page 96 of ES Appendix 6.10: Assessment Tables [AS-052]. Mitigation for the physical impact to Asset 412 is listed in ES Chapter 6 and the Assessment Tables as 'archaeological excavation and recording'. This mitigation commitment is secured for this asset on page 139 of the AMS-OWSI. The details of the archaeological excavation and recording would be set out post-DCO consent in a Site-Specific Written Scheme of Investigation (SSWSI), with the agreement of Essex Place Services. The SSWSI would also include provision for dealing with unknown marine/maritime archaeological material that could be encountered</p>

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		<p>during the construction of the outfall (or impacted by its operation). The Project would not result in any other physical impacts within the River Thames.</p> <p>With regard to the construction of the tunnel, this would not impact upon riverine/marine/maritime archaeological deposits. Where the tunnel passes below the River Thames, it would be excavated through chalk bedrock. The chalk geology does not contain any archaeological remains as the deposits pre-date human activity in Britain.</p> <p>With regard to marine biodiversity, there is no inter-relationship between this subject and archaeological matters because there is no requirement for intrusive archaeological mitigation works.</p>
ExQ1_Q12.1.9	N/A	<p>Organic Deposits – Baseline Monitoring</p> <p>Non-designated organic deposits and remains of possible national importance that owe their significance to waterlogging are not adequately considered in the ES nor in the draft Archaeological Mitigation Strategy and oWSI [APP-367]. Historic England require baseline monitoring for the hydrological environment of areas of impact to allow a model to be developed which can be considered in relation to the development proposals and so that appropriate mitigation by design and/or remedial works can be agreed upon. The Applicant shall provide comment on the feasibility of meeting the request of the Historic England and any timeframe for providing the information and/or outline any relevant concerns.</p>

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		<p>Response:</p> <p>The Applicant has engaged in extensive discussions with Historic England over the potential for waterlogged deposits of national importance. The archaeological trial trenching has not revealed any significant non-designated organic deposits of possible national importance and the activities of the Project are not likely to cause any dewatering. There is a potential for dewatering at the M25 junction which may affect the Ockendon Channel, although no organic deposits are known from this area.</p> <p>In their Written Representation (WR) [REP1-240] Historic England confirmed that the baseline data provided by the Project was '<i>adequate for the purposes of assessment and for presentation at examination</i>'. The Applicant would like to confirm that Historic England has not requested hydrological baseline monitoring or modelling on the Project and has stated that in this case they did not believe it would be appropriate. Historic England has agreed that this will be recorded in the Statement of Common Ground (SoCG) item 2.1.8 [REP1-061] as a 'matter agreed' for clarity. For this reason, the Applicant does not therefore propose to provide comment on the feasibility or timeframes for providing further information in relation to this matter.</p>
ExQ1_Q12.1.10	Local Authorities Historic England	<p>Waterlogged Organic Deposits</p> <p>A strategy has been included in the oWSI [APP-367] to address any unexpected finds (Sections 7.1.14 and 7.3.127). Section 7.1.14 adds that if the relevant local authority finds that further investigation is needed that no construction would take place within 10m of the remains until further investigation can take place. However, if waterlogged remains are discovered, a greater stand-off may be more appropriate to ensure that the area is not accidentally dewatered before the mitigation strategy is implemented. Does the Applicant agree to amending the oWSI to allow the relevant local authority to set a greater stand-off distance for unexpected waterlogged finds? Local Authorities and Historic England shall confirm what would be sufficient to address this issue.</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>The Applicant agrees to amend Environmental Statement Appendix 6.9: Draft Archaeological Mitigation Strategy and Outline Written Scheme of Investigation [APP-367]. Firstly paragraphs 7.1.14 and 7.3.127 will signpost the reader to paragraph 7.3.36 which sets out the process for dealing with waterlogged material. Paragraph 7.3.36 will be amended to make clear the process set out would also apply to unexpected waterlogged finds.</p> <p>Secondly, both paragraphs 7.1.14 and 7.3.127 refer to the 10m stand-off distance and it is proposed to amend this to read '<i>a minimum of 10m, where unexpected waterlogged archaeological finds are present</i>'.</p>
ExQ1_Q12.1.11	Gravesham Borough Council	<p>Missing Archaeological Fieldwork</p> <p>No archaeological fieldwork appears to have been undertaken in the area immediately east of Thong Lane, to the north of Cascades Leisure Centre. There is potential for the land to contain iron age assets, which may be harmed or lost when the land is subsequently regraded to create Chalk Park. Can Gravesham Borough Council advise when they would like this assessment undertaken and how they would like to see this captured in the oWSI [APP-367]? Can the Applicant explain any constraint to undertaking such fieldwork?</p> <p>Response:</p> <p>The area to the east of Thong Lane, to the north of Cascades Leisure Centre includes a range of known and potential heritage assets of archaeological interest identified through desk study, aerial photographic analysis and geophysical survey carried out by the Project. A programme of evaluation has been discussed with Kent County Council as archaeological advisors to Gravesham Borough Council. This builds on the earlier assessments and will include controlled metal detecting and fieldwalking. Timing of the archaeological trial trenching here is constrained by the controlled metal detecting and fieldwalking which should be completed prior to any intrusive archaeological work in this area.</p>
ExQ1_Q12.1.12	N/A	<p>Missing Archaeological Fieldwork</p> <p>Paragraphs 2.7.4 and 2.7.5 of ES Chapter 2 – Project Description [APP-140] state that “a series of desktop studies, geophysical surveys, and a programme of archaeological trial trenching (ATT) running from 2019 to 2021 was carried out across the Project. Further investigation, which could include geophysical survey, digging specialist test pits, fieldwalking and ATT, is likely to be required in a small number of locations</p>

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		<p>where access was not available during the ATT programme.” Can the Applicant advise what sites are still subject to further investigation and when is it proposed to carry out the work?</p> <p>Response: Further archaeological trial trenching is required in four locations:</p> <ul style="list-style-type: none"> • Under 50 trial trenches are required to the south of North Ockendon • Approximately 30 trial trenches are required to the north of Gravelhill Wood • Approximately 200 trial trenches are required east of Thong Lane to the north of Cascades Leisure Centre • Approximately 50 trenches are required on the site of the Southern Valley Golf Course <p>This equates to circa 8% of the completed trial trenching. These four sites are all adjacent to areas where the Applicant has undertaken extensive archaeological trial trenching, desk-based research and aerial photographic analysis or geophysical survey. The proposals are being discussed with the relevant Local Authority Archaeological Advisors and the Applicant will update draft Archaeological Mitigation Strategy and Outline Written Scheme of Investigation [APP-367] following these discussions. The work is required to inform the detailed archaeological mitigation for these areas.</p> <p>Additionally, a further geophysical survey has been commissioned to be carried out on potential nitrogen deposition compensation sites this year, which will be carried out in the autumn when ground conditions are suitable (i.e. post-crop harvest).</p>
ExQ1_Q12.1.13	N/A	<p>1-2 Grays Corner Cottages</p> <p>Can the Applicant advise whether it has assessed the feasibility of dismantling the assets and moving them to an alternative location for their reassembly, and the extent to which their significance could be retained by doing so. If the Applicant hasn't carried out a feasibility assessment it should justify why not or provide the assessment by Deadline 6.</p>

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		<p>Response:</p> <p>The Applicant has not carried out a detailed assessment of the feasibility of dismantling and relocating the cottages elsewhere for the reasons set out below.</p> <p>Nos 1 and 2 Grays Corner Cottages are described in their listing as an example of a late 18th century vernacular building. However, as the properties are not shown on the 1839 tithe map, they are likely to be of mid-19th century date. The cottages were substantially altered in the 1980s when No 2 was built as part of a large extension to the smaller original house. Since the date of listing in 1981 the external appearance of the property has changed significantly.</p> <p>The building has evidential value in the potential it holds for further evidence relating to the structure and history of the building; this evidence will be exposed during the dismantling of the structure and would be recorded during the proposed Historic England Level 4 historic buildings recording. The detailed Historic England Level 4 historic buildings recording will require the careful dismantling and recording of Grays Corner Cottages.</p> <p>The area has been significantly altered by 20th century changes to the road network which negatively impacts on the aesthetic value of the building. But Grays Corner Cottages were sited on the cross roads on Bakers Lane at the turn to Grays on the edge of Orsett and this provides some evidence of the historic layout and evolution of the area, which will contribute to its overall heritage significance. Rebuilding the cottages in a location divorced from this connection would further diminish any residual significance and would not be a proportionate response.</p> <p>The Applicant notes that in their Written Representation (WR) [REP1-240] Historic England confirmed that they do not object in principle to the demolition of Grays Corner Cottages and, following a technical meeting on the 25 August 2023, agreed that historic buildings recording was appropriate mitigation for the loss of the listed building and that the Statement of Common Ground (SoCG) [REP1-061] should be updated accordingly.</p> <p>Environmental Statement Appendix 6.16: Historic Buildings Recording [APP-374] has considered the general potential for reconstruction of 1–2 Grays Corner Cottages. The initial assessment of feasibility in Section 4.2 concluded that from a Cultural Heritage Perspective there are no apparent reasons why the building could not be relocated.</p> <p>However, several important factors need to be taken into account before relocation can be considered:</p>

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		<ul style="list-style-type: none"> • The building should only be relocated to a permanent location with sustainable, long-term management. The cottages are not sufficiently special to be of interest to a museum. The costs of the relocation and the long-term management of Grays Corner Cottages should be proportionate to the heritage significance of the building. • The reconstruction of the building needs to be technically feasible; the fabric should be in appropriate condition and free from any disease. This can only be known from the careful dismantling of the listed building during the Historic England Level 4 historic buildings recording. • Policy does not require the relocation of the cottages. The public benefits of the Project very substantially outweigh their loss. <p>Whilst not necessary in planning terms, the Applicant is involved in discussions with Essex Place Services and Historic England over the potential for suitable alternative locations and will update the Examining Authority on progress at Deadline 6 if anything emerges from those discussions.</p>
ExQ1_Q12.1.14	N/A	<p>Murrells Cottage, 1 and 2 Stanford Road</p> <p>The Applicant has stated that demolition is the only option for this subdivided listed building, however, the Applicant should set out a) a clear statement identifying what factors determine its demolition in terms of highway design and engineering, and b) why the asset cannot be dismantled and moved to an alternative location for its reassembly, and the extent to which its significance could be retained by doing so.</p> <p>Response:</p> <p>The development of the A13/A1089/A122 Lower Thames Crossing junction and the alternatives considered are detailed in Section 3.22 of Environmental Statement (ES) Chapter 3: Assessment of Reasonable Alternatives [APP-141]. The layout shown in the Preferred Route Announcement was developed to remove the links to the A128 Brentwood Road due to traffic impact on Orsett Cock junction. Following this, all required movements were incorporated within the A13 junction with links to the A13 east of the route. Due to the proximity of the A13/A1089/A122 Lower Thames Crossing junction and Orsett Cock junction, the link roads were designed to remove the weaving length on the A13 due to safety concerns. This required the diversion of Stanford Road A1013 south to allow space for this design. The wider A13 corridor requires the Rectory Road structure to be raised to maintain headroom which also affects the vertical design of the A1013 slightly raising it to tie into the new structure.</p>

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		<p>The full A13 corridor has been narrowed as much as reasonably possible with the use of retaining walls and minimising space between the link roads.</p> <p>These design developments led to the impact on Murrells Cottages.</p> <p>The Applicant has not carried out a detailed assessment of the feasibility of dismantling and relocating the cottages elsewhere.</p> <p>Originally constructed as a single cottage, the building has been subdivided and while now two separate properties (Murrells and Thatches) Murrells Cottages are listed as one building on the National Heritage List.</p> <p>Murrells Cottages is a good example of a modest timber-framed building; however, it was extended in the 1950s, one half of the building was rebuilt in 1961 and an extension was consented in 2014. These works have altered the historic roof structure and removed some of the significance of the listed building, although it was listed in 1981 after some of these works had taken place.</p> <p>The building has evidential value in the potential it holds for further evidence relating to the structure and history of the building; this evidence will be exposed during the dismantling of the structure and would be recorded during the proposed Historic England Level 4 historic buildings recording. The detailed Historic England Level 4 historic buildings recording will require the careful dismantling and recording of Murrells Cottages.</p> <p>Part of the heritage significance of Murrells Cottages comes from the extensive documentary information available from c1840 that provides a well-documented history of the site and its occupants. The detailed Historic England Level 4 historic buildings recording will include further archival research which would increase understanding of the significance of this element of the asset in accordance with paragraph 5.140 of the National Policy Statement for National Networks².</p> <p>The area to the north of the building has been significantly altered by 20th century changes to the road network but the more rural landscape to the east and south contributes to its setting.</p> <p>The Applicant notes that in their Written Representation (WR) [REP1-240] Historic England confirmed that they do not object in principle to the demolition of Murrells Cottages and, following a technical meeting on</p>

² Department for Transport (2014). National Policy Statement for National Networks.

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PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>the 25 August 2023, agreed that historic buildings recording was appropriate mitigation for the loss of the listed building and that the Statement of Common Ground (SoCG) [REP1-061] should be updated accordingly. The ES Appendix 6.16: Historic Buildings Recording [APP-374] has considered the general potential for reconstruction of Murrells Cottages. The initial assessment of feasibility in Section 5.2 concluded that, from a Cultural Heritage Perspective, there are no apparent reasons why the building could not be relocated.</p> <p>However, several important factors need to be taken into account before relocation can be considered:</p> <ul style="list-style-type: none"> • The building should only be relocated to a permanent location with sustainable, long-term management. The cottages are not sufficiently special to be of interest to a museum. The costs of the relocation and the long-term management of Murrells Cottages should be proportionate to the heritage significance of the building. • The reconstruction of the building needs to be technically feasible; the fabric should be in appropriate condition and free from any disease. This can only be known from the careful dismantling of the listed building during the Historic England Level 4 historic buildings recording. • Murrells Cottages would be more suitably used as a source for historic structural timbers, fixtures and fittings, to be used in the repair of other historic properties rather than being reconstructed in its own right. • Policy does not require the relocation of the cottages. The public benefits of the Project very substantially outweigh their loss. <p>Whilst not necessary in planning terms, the Applicant is involved in discussions with Essex Place Services and Historic England over the potential for suitable alternative locations and or the use of materials from the cottage, and will update the Examining Authority on progress at Deadline 6 if anything emerges from those discussions.</p>
ExQ1_Q12.1.15	N/A	<p>Thatched Cottage, Baker Street</p> <p>Historic England consider that of the listed buildings proposed for demolition that the Thatched Cottage has the higher overall potential for relocation. Can the Applicant advise whether it has assessed the feasibility of dismantling the original part of the asset (not the later extensions or outbuildings) and moving it to an alternative location for its reassembly and the extent to which its significance could be retained by doing</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>so? If the Applicant hasn't carried out a feasibility assessment it should justify why not or provide the assessment by Deadline 6. Can the Applicant also advise on whether the relocation of the building could be a candidate for a Legacy Project for training/upskilling in traditional building techniques? If not, why not?</p> <p>Response:</p> <p>The Applicant has not carried out a detailed assessment of the feasibility of dismantling and relocating the cottages elsewhere for the reasons set out below.</p> <p>The Thatched Cottage is an example of a modest timber framed building, but has had the windows replaced in the 19th century and an extension added in 2005.</p> <p>The building has evidential value in the potential it holds for further evidence relating to the structure and history of the building; this evidence will be exposed during the dismantling of the structure and would be recorded during the proposed Historic England Level 4 historic buildings recording. The detailed Historic England Level 4 historic buildings recording will require the careful dismantling and recording of Thatched Cottage.</p> <p>This area has been significantly altered by 20th century changes to the road network, although the Thatched Cottage and its setting can provide evidence of the historic layout and evolution of the area.</p> <p>The Applicant notes that in their Written Representation (WR) [REP1-240] Historic England confirmed that they do not object in principle to the demolition of Thatched Cottage and, following a technical meeting on the 25 August 2023, agreed that historic buildings recording was appropriate mitigation for the loss of the listed building and that the Statement of Common Ground (SoCG) [REP1-061] should be updated accordingly.</p> <p>The Environmental Statement Appendix 6.16: Historic Buildings Recording [APP-374] has considered the general potential for reconstruction of the Thatched Cottage. The initial assessment of feasibility in Section 4.2 concluded that, from a Cultural Heritage perspective, there are no apparent reasons why the building could not be relocated.</p> <p>However, several important factors need to be taken into account before relocation can be considered:</p> <ul style="list-style-type: none"> • The building should only be relocated to a permanent location with sustainable, long-term management and public access. The costs of the relocation and the long-term management of Thatched Cottage should be proportionate to the heritage significance of the building.

PINS ID	External Stakeholder (where applicable)	Question / Response
		<ul style="list-style-type: none"> • The reconstruction of the building needs to be technically feasible; the fabric should be in appropriate condition and free from any disease. This can only be known from the careful dismantling of the listed building during the Historic England Level 4 historic buildings recording. However, the lightweight nature of the structure appears to make it more practical to relocate this building than Nos 1 and 2 Grays Corner Cottages or Murrells Cottages. • Whilst the Thatched Cottage is considered by the Applicant to have the most heritage significance of the three listed buildings to be demolished (i.e. alongside Nos 1 and 2 Grays Corner Cottages and Murrells Cottages), policy does not require the relocation of the cottage. The public benefits of the Project very substantially outweigh its loss. <p>Consideration has not been given to whether the relocation of the building would be a suitable candidate for upskilling local communities in traditional building techniques. If a decision to relocate the building is made, the Applicant would work with members of the Employment and Skills Working Group, its supply chain and specialist training providers to consider whether doing so would contribute towards its ambition of providing local communities with skills that support sustainable local job opportunities.</p> <p>Whilst not necessary in planning terms, the Applicant is involved in discussions with Essex Place Services and Historic England over the potential for suitable alternative locations and will update the Examining Authority on progress at Deadline 6 if anything emerges from those discussions.</p>
ExQ1_Q12.1.16	N/A	<p>Undesignated Heritage Assets, Ockendon Road</p> <p>Historic England disagrees with the Applicant’s assessment of significance for Project IDs 4153, 4154, 4155, 4156, 4157, and 4775 and 4776 (Estate House, 1, 2, 3 & 4 Bridge Cottages, Larwood Cottage and The Rosery), which are all proposed for demolition. They consider that their group value has been overlooked (along with Nos. 1-2 Cherry Orchard Cottages, which have not been assessed) and that their demolition would result in substantial harm and the total loss of significance of those assets. The Applicant is asked to revisit their assessment of these non-designated heritage assets with group value in mind and to provide the ExA with an updated position on the level of harm when assessed as a group as opposed to individually.</p>


PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>The Applicant has further considered the assets identified by Historic England in its Written Representation [REP1-240], including Nos. 1-2 Cherry Orchard Cottage, and agree that the assessment should take into account the group value of these non-designated heritage assets.</p> <p>As a group, these assets are still assessed as low value, being of local interest and predicted to experience a major impact resulting in a permanent moderate adverse effect that is significant.</p> <p>The Applicant notes that policies relating to designated assets should not be applied to non-designated assets (other than where paragraph 5.124 of the National Policy Statement for National Networks³ applies which it does not in this case). The demolition of the group would not therefore amount to 'substantial harm'.</p> <p>The Applicant has subsequently discussed the mitigation of this group of assets with Historic England and Essex Place Services. Currently Historic England Level 3 recording is proposed within Environmental Statement Appendix 6.9: Draft Archaeological Mitigation Strategy and Outline Written Scheme of Investigation [APP-367] though in order to fully record the significance of the heritage assets as a group, the Applicant proposes to carry out Level 4 recording. This has been agreed with Historic England as reflected in the latest update to the Statement of Common Ground (SoCG) [REP1-061], which the Applicant expects to be able to submit at Examination Deadline 5.</p>
ExQ1_Q12.1.17	N/A	<p>Undesignated Heritage Assets, Homes for Heroes, Thong</p> <p>Historic England disagrees with the Applicant's assessment of significance for Project IDs 1561, 4401-4403, 4597-4600 (Homes for Heroes), whose setting would be notably altered. They consider that their group value has been overlooked and that the project's impact on the non designated assets would be higher than reported (moderate adverse). The Applicant is asked to revisit their assessment of these non-designated heritage assets with group value in mind and to provide the ExA with an updated position on the level of harm when assessed as a group as opposed to individually.</p>

³ Department for Transport (2014). National Policy Statement for National Networks.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/387222/npsnn-print.pdf

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>The eight properties dating from 1920's land settlement scheme, the 'Homes for Heroes' are an important component of the character of the Thong Conservation Area, and notwithstanding a lack of individual designation were considered as Heritage Assets by the Applicant.</p> <p>The Applicant also considered it appropriate to assess each property individually for the following reasons.</p> <ul style="list-style-type: none"> • The specific siting of the 'Homes for Heroes' within Thong was not part of an overall plan to locate this type of housing within the village or, as is the case in other examples elsewhere in the country, to provide homes for veterans close to their original communities and extended families. Land was required by London City Council and land was available to purchase in Thong. Therefore the 'Homes for Heroes' in Thong were not designed as a group. • The properties were developed as individual plots, each intended to support a family, as such there was no functional inter-dependency between the properties. • The original four blocks of two semi-detached dwellings have been significantly altered, the two blocks furthest south have had substantial extensions and ancillary development to the West. This means that the key components on the 'Homes for Heroes', in particular the smallholders agricultural sheds all built to a standard pattern of the plot are no longer legible for the two blocks to the south. (see Plate 1) • The Thong Conservation Area Appraisal Supplementary Planning Document (SPD)⁴ states that the London City Council scheme was soon failing and in 1925 the administration was taken over by Kent County Council, and by the 1930s '<i>the holdings were either untenanted or had been taken over by neighbouring farms</i>'. In effect losing their context and becoming part of the village. • The Thong Conservation Area Appraisal SPD, stated that '<i>the significance of these houses lies in the key part they play in the little colony's overall plan. In many respects the semis are not unlike the more common rural council houses of the inter-war period</i>'.

⁴ Gravesham Borough Council (2017). Thong Rural Conservation Area Appraisal Supplementary Planning Document. <https://drive.google.com/file/d/0B3rpRo7SzRqdbnQ0Q2I0RjRnQ1k/view?resourcekey=0-uCGzAsShq6FK0DZ6R2CcTw>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p style="text-align: center;">Plate 1 Thong Homes for Heroes showing Project Order Limits</p> 

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>The 'Homes for Heroes' were assessed individually as experiencing a slight adverse effect, reported in Environmental Statement Chapter 6: Cultural Heritage [AS-044]. Drawing on the assessment and the comments made within the Thong Conservation Area Appraisal SPD the Applicant still considers that the assessment for the 'Homes for Heroes' should be made individually, and that the impact assessed as slight adverse was appropriate.</p> <p>The buildings play a role within the wider settlement of Thong as has been assessed as experiencing a moderate adverse effect during operation of the Project, which is significant.</p> <p>Following a technical meeting on the 25 August 2023, Historic England agreed that the approach to the assessment of the 'Homes for Heroes' was appropriate and that the Statement of Common Ground (SoCG) [REP1-061] will be updated accordingly.</p>
ExQ1_Q12.2.1	N/A	<p>Methodology</p> <p>Can the Applicant affirm that it has followed the Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3)? Essex County Council have identified that recreational receptors on Public Rights of Way have been classed as having the same sensitivity as transport receptors, which does not align with GLVIA3. The Applicant should explain this circumstance.</p> <hr/> <p>Response:</p> <p>The Applicant has provided a response to this issue, raised by Essex County Council on Page 29 of their Local Impact Report (LIR) [REP1-226], within the Comments on LIRs Appendix C: Essex County Council [REP2-057].</p> <p>The Applicant can confirm that the assessment in Environmental Statement (ES) Appendix 7.10: Schedule of Visual Effects [APP-385] is consistent with the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3)⁵.</p> <p>Recreational receptors on long distance footpath routes, for example, Saxon Shore Way at Representative Viewpoint S-38a and S-38b, have been assessed as high sensitivity within ES Appendix 7.10 due to their recognised recreational value. Recreational receptors using more local routes, for example footpath NS167 near Thong village at Representative Viewpoint S-25, have been assessed within ES Appendix 7.10 as</p>

⁵ Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment, Third Edition.

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		<p>moderate sensitivity. Recreational receptors within the Kent Downs Area of Outstanding Natural Beauty have been assessed as very high or high sensitivity, depending on the nature of existing views, to take account of their location within the designated area. GLVIA3 states in paragraph 6.33 that '<i>visual receptors most susceptible to change are generally likely to include... people... who are engaged in outdoor recreation, including use of public rights of way</i>'. Paragraph 6.35 then goes on to say that '<i>this division is not black and white and in reality there will be a gradation in susceptibility to change. Each project needs to consider the nature of groups of people who will be affected and the extent to which their attention is likely to be focused on views and visual amenity</i>'.</p> <p>The transport receptors that have been assessed as moderate rather than low sensitivity within ES Appendix 7.10, are those that travel through rural areas where users are likely to be more sensitive to changes in views across their surroundings, for example, along Bowesden Lane at visual receptor reference VR-S01-T-001 within ES Appendix 7.10. Paragraph 6.33 of the GLVIA3 notes that '<i>Where travel involves recognised scenic routes awareness of views is likely to be particularly high</i>'. Although there are no designated scenic routes within the study area, susceptibility to change is likely to be higher where transient users have more awareness of their views.</p>
ExQ1_Q12.2.2	N/A	<p>Nitrogen Deposition Sites</p> <p>Paragraph 4.4.4 of ES Chapter 4 – EIA Methodology [APP-142] states that “the DCO application documents do not specify in detail the design and future management regime for the habitat creation sites proposed as compensation for the effects of nitrogen deposition. The design and management regimes for these locations would be further developed as part of the detailed design, in accordance with the control plan documents including the Outline Landscape and Ecology Plan (oLEMP) (Application Document 6.7), Design Principles (Application Document 7.5) and the Environmental Masterplan (ES Figure 2.4: Application Document 6.2).” The Applicant should explain what affect this might have on the findings of the Landscape and Visual Impact Appraisal?</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>Although the design details and future management regime for the nitrogen deposition compensation sites would not be developed until the detailed design stage, this does not affect the findings of the landscape and visual impact assessment in Environmental Statement (ES) Chapter 7: Landscape and Visual [APP-145]. This is because as set out in paragraph 7.3.98, bullet (d) of ES Chapter 7, the landscape and visual impact assessment of the effects of the proposed nitrogen deposition compensation sites has assumed approximately 70% woodland coverage. Although the proportion of woodland planting may be higher or lower at some nitrogen deposition sites, the assessment has been undertaken with regard to clauses LSP.24 to LSP.27, S1.18, S1.20 to S1.22, S2.13, S10.14 and S14.16 to S14.18 of the Design Principles (Version 2.0) [REP3-110], which would ensure that the detailed design mitigates the potential adverse effects of woodland planting, by retaining vistas and/or maintaining a sense of openness.</p> <p>Paragraph 8.28.8 of the outline Landscape and Ecology Management Plan (Version 3.0) [REP3-106] states that the management requirements for nitrogen deposition compensation sites include, at bullet c), 'To establish the habitats whilst: i) avoiding significant effects on other receptors, and ii) taking opportunities to enhance public access and landscape'. The detailed design of the nitrogen deposition compensation areas will therefore avoid any significant landscape and visual effects over and above anything reported in the assessment and will take opportunities to enhance landscape character and visual amenity.</p>
ExQ1_Q12.2.3	N/A	<p>Photomontage Reliability 1</p> <p>If detailed design of the bridges and structures has not been completed (particularly but not least the viaducts in Orsett Fen and Mardyke), how can the ExA be confident that the photomontages produced are an accurate representation of the impact of those structures in the landscape? Can the Applicant also advise whether the photomontages of other National Highways NSIP schemes have been revisited post construction to determine validity and success of the renditions?</p> <p>Response:</p> <p>The photomontages in Environmental Statement (ES) Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (1 to 4) [APP-244, APP-245, APP-246 and APP-247], ES Figure 7.19: Photomontages –</p>

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		<p>Winter Year 1 and Summer Year 15 (2 of 4) [REP1-131] and ES Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (1 of 4) (Version 2.0) [REP3-102] illustrate the proposed outline design, which can vary within the stated Limits of Deviation of 0.5m upward and 1m downward, as set out in article 6(2) of the draft Development Consent Order (Version 5.0) [REP3-077]. Given the work undertaken to establish the upper and lower Limits of Deviation and the current stage of design development, the photomontages are therefore considered to represent a reasonable worst case. The method of establishing the limits of deviation and the commitment to high quality detailed design are explained below.</p> <p>The Project Design Report: Part F, Structures and Architecture [APP-513] explains in Section 3.3 that ‘<i>the limits of deviation are designed to ensure that the development consent, if granted, includes a proportionate amount of flexibility, allowing a degree of ‘deviation’ from certain aspects of the consented Project...</i>’. This flexibility required a process of defining the technical requirements and constraints for each structure, thereby establishing structural options and space proofing appropriate to each. As Section 3.3 notes: ‘<i>Structural options have been looked at for every structure. These investigated different span arrangements and some common forms of construction materials.</i>’ Therefore, the primary features of the preliminary design, its location, scale and massing (including clearances below), are represented in the photomontages as a reasonable worst case and can be relied upon with confidence. Section 3.3 goes on to say that ‘<i>while the Project has sought to maintain flexibility for the final spans, forms and finishes of bridges and viaducts, it has also made commitments to their high quality design and common design language through the Project Design Principles...</i>’</p> <p>The Examining Authority can therefore be confident that the photomontages accurately illustrate the reasonable worst-case design and that the detailed design will be further developed and refined in accordance with the principles for enhancing the design, as set out in the relevant clauses of the Design Principles (Version 2.0) [REP3-110], for example, Clause S12.03 Mardyke and Orsett Fen Viaduct design.</p> <p>A review of post-construction changes to visual amenity forms part of the National Highways Post-Opening Project Evaluation team assessment of whether the Project was delivered in accordance with the commitments stated in the relevant Project Register of Environmental Actions and Commitments (REAC). This includes a review of photomontages, alongside review of the landscape and visual impact schedules.</p>

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ExQ1_Q12.2.4	N/A	<p>Photomontage Reliability 2</p> <p>The ExA is concerned that the maturity of some of the landscaping at year 15 after opening may be overestimated; this has also been identified by Natural England in their Written Representation [REP1- 262] at Paragraph 6.1.58, with specific reference to viewpoint S-05a. The Applicant is therefore asked to review the photomontage set contained in Figure 7.19 [APP-244, APP-245, APP-246, APP-247] and to make any adjustments necessary, not least to viewpoint S-05a. Any adjustments should be identified with a resubmission including tracked changes commentary.</p> <p>Response:</p> <p>The Applicant acknowledges the error in the year 1 photomontage view from Representative Viewpoint S-05a in Environmental Statement (ES) Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (1 of 4) [APP-244]. The impression of overestimated maturity was the result of existing woodland incorrectly shown retained in the year 15 view behind the proposed belt of shrub and tree planting. This error has now been corrected in a revised photomontage submitted in ES Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (1 of 4) (Version 2.0) [REP3-102], as discussed in the ES Addendum (Version 3) issued at Deadline 3 [REP3-124]. The revised photomontage accurately shows the mitigating effect of proposed planting.</p> <p>As stated in paragraph 7.3.92 of ES Chapter 7: Landscape and Visual [APP-145], the heights of proposed planting assumed for the preparation of photomontages are:</p> <ul style="list-style-type: none"> • 4.5m to 6m in height for oak and sweet chestnut • 6m to 10m for other trees • 3m for shrubs and scrub • 2.5m for managed hedgerows <p>Except for the height of shrubs and scrub, the above heights were discussed in a joint meeting with Natural England and the Kent Downs Area of Outstanding Natural Beauty Unit, held on 02 June 2021, at which Natural England confirmed that it would be helpful to set out these assumptions in the photomontage methodology.</p> <p>The Applicant confirms that the above heights have been used for the preparation of the photomontages in ES Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (1 to 4) [APP-244, APP-245, APP-</p>

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		<p>246 and APP-247], the updated ES Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (2 of 4) [REP1-131] submitted at Deadline 1, and the updated ES Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (1 of 4) (Version 2.0) [REP3-102] submitted at Deadline 3.</p>
ExQ1_Q12.2.5	Local Authorities Kent Downs AONB Unit Natural England	<p>Mitigation Planting and Photomontages</p> <p>It is noted that Register of Environmental Actions and Commitments No. LV003 (contained in ES Appendix 2.2 – Code of Construction Practice, First Iteration of Environmental Management Plan) [REP1-157] states that “the first five years of vegetation establishment would be overseen by an Environmental Clerk of Works” and that “failed vegetation in this period would be replaced.” Can the Local Authorities, Kent Downs AONB Unit and Natural England advise whether this period of time is sufficient when landscape mitigation is so heavily relied upon to minimise adverse landscape and visual effects and air quality effects of the project?</p> <p>Response:</p> <p>Five years is a typical period for initial vegetation establishment maintenance, including the replacement of any failed planting. However, after this initial five-year period, establishment maintenance would transition to a long-term management and monitoring period. Table 4.1 of the outline Landscape and Ecology Management Plan (oLEMP) (Version 3.0) [REP3-106] defines the duration of establishment period required for each of the proposed habitat types. Many of these establishment periods extend beyond five years.</p> <p>As noted in paragraph 4.2.2 of the oLEMP, ‘<i>the long term management and monitoring is important to the success of the mitigation planting areas. Outline measures of success and monitoring frequency and methods are provided in section 8 for each planting typology</i>’. Section 8 confirms that after the first five-year establishment period, long-term monitoring would be undertaken to assess the success of developing the relevant target priority habitat, and/or that the measures of success are met and maintained.</p> <p>As noted in paragraph 4.1.8 of the oLEMP, ‘<i>... National Highways will appoint a monitoring party to work collaboratively with the advisory group ... and monitor the outcomes of the works carried out at set intervals during the agreed management/monitoring period (as set out in Table 4.1). The monitoring party will include suitably qualified and experienced ecologists and landscape architects. The ultimate responsibility for the monitoring sits with National Highways.</i>’</p>

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		<p>The Lower Thames Crossing Advisory Group (Advisory Group) would be set up to help inform decision making throughout the duration of the Landscape and Ecology Management Plan that would be submitted under Requirement 5 of the draft Development Consent Order (Version 5) [REP3-077]. The Advisory Group would include, amongst others, local planning authorities, Natural England and the Kent Downs Area of Outstanding Natural Beauty Unit. The Advisory Group would be involved in discussions related to long-term management, with one of the purposes of the Advisory Group described in bullet point g of paragraph 1.2.1 of the oLEMP Appendix 1: LEMP Terms of Reference [APP-491], as being to ‘<i>Ensure successful achievement of objectives/measures of success have been achieved (based on the results of the monitoring carried out and provided)</i>’.</p>
ExQ1_Q12.2.6	N/A	<p>Landscape Character – Regrading of Sensitivity and Effects</p> <p>Several IP’s and Statutory Parties have identified that the Cobham Sub-area was assigned a ‘very high’ sensitivity in the 2020 version of the Landscape and Visual Impact Assessment (LVIA), and that no justification for the reduction in sensitivity to ‘high’ in the current assessment is provided and there has been no change in the baseline situation. The magnitude of effect on the West Kent Downs Sub-areas Shorne and Cobham has also been downgraded since the 2020 version from ‘Moderate Adverse’ to ‘Minor Adverse’ in the 2022 submission at Design Year resulting in a diminished significance of effect. Pursuant to DMRB LA 104 EIA Methodology, while ‘moderate’ residual effects can be considered to be material in decision making, ‘slight’ (or minor) residual effects are not material. The Applicant should provide justification for these downgrades as they have the potential to underplay the effects.</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>Since the Development Consent Order (DCO) application made in October 2020 was withdrawn, a thorough review of the landscape impact assessment in Environmental Statement (ES) Chapter 7: Landscape and Visual [APP-145] has been undertaken in conjunction with further refinement of the Project design. The assessment of sensitivity considers both the baseline conditions and the Project design, in accordance with the overarching best practice guidelines set out in the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3)⁶. Paragraph 3.26 of GLVIA3 states that ‘... <i>sensitivity [is] made up of judgements about:</i></p> <p style="padding-left: 40px;"><i>The susceptibility of the receptor to the type of change arising from the specific proposal; and</i></p> <p style="padding-left: 40px;"><i>The value attached to the receptor.</i>’ (emphasis added)</p> <p>The assessment of high sensitivity for the West Kent Downs (sub area Cobham) Local Landscape Character Area (LLCA) has regard to the updated assessment of susceptibility to change set out in Table 1.3 of ES Appendix 7.9: Schedule of Landscape Effects [APP-384], which explains that ‘... <i>due to the presence of the existing A2 corridor and HS1 along the northern boundary of this LLCA, the receptor has some ability to accommodate the Project without substantial loss of its overall integrity.</i>’ Retention of existing vegetation south of the HS1 corridor would ensure that an effective landscape buffer is maintained between the Project and the West Kent Downs (sub area Cobham) LLCA.</p> <p>Section 6 of the Applicant’s Comments on Written Representations (WRs) Appendix A: Statutory Environmental Bodies [REP2-046] responding to Natural England’s Written Representation (WR) [REP1-262], confirms that ‘<i>the landscape sensitivity of the West Kent Downs (sub area Cobham) LLCA has been assessed as high, which is consistent with the descriptors provided for landscape sensitivity in DMRB LA 107 Landscape and Visual Effects (Highways England, 2020a): Landscapes of high national importance containing distinctive features/elements with limited ability to accommodate change without incurring substantial loss/gain (i.e. designated areas, areas of strong sense of place – registered parks and gardens, country parks)</i>’.</p> <p>As explained in Section 6 of the Applicant’s response to Natural England’s Written Representation [REP2-046], the findings of the two assessments of effects on the West Kent Downs (sub area Cobham) LLCA</p>

⁶ Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment, Third Edition.

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		<p>and on the West Kent Downs (sub area Shorne) LLCA are 'brought together into a combined assessment for the overarching West Kent Downs Landscape Character Area (LCA) 1A identified in the Kent Downs AONB Landscape Character Assessment Update' in ES Appendix 7.9: Schedule of Landscape Effects [APP-384]. The combined assessment of the effect of the Project on the West Kent Downs LCA 1A is a large adverse significance of effect in the opening year and a moderate adverse significance of effect in the design year. This is the same as the assessment for the West Kent Downs (sub area Shorne) LLCA. It is acknowledged that moderate significance levels of effect and above can be considered material to decision making and the Applicant does not therefore agree that the effects have been underplayed.</p>
ExQ1_Q12.2.7	N/A	<p>Weight of Adverse Effects on AONB</p> <p>Can the Applicant advise whether or not it agrees with the following proposition put forward by the Kent Downs AONB Unit? "We would contend that within a nationally designated AONB, adverse effects on an AONB do not have to be classed as 'significant' in order for the great weight applied in national policy to conservation and enhancement of AONBs to apply. For example, it is perfectly possible that 'moderate' and even 'slight' adverse effects on an AONB are material in the decision-making process and may mean that the adverse effects of a proposed development outweigh the potential benefits."</p> <p>Response</p> <p>The Environmental Statement and the Planning Statement have taken account of all and any adverse effects on the Kent Downs Area of Outstanding Natural Beauty (AONB) and firstly, demonstrate that exceptional circumstances exist and the development is in the public interest, and secondly, demonstrate that there are compelling reasons for new or enhanced capacity and the benefits of the Project outweigh the costs very significantly.</p> <p>Environmental Statement (ES) Chapter 7: Landscape and Visual [APP-145] provides an assessment of the effects on landscape character and visual amenity within the Kent Downs AONB and concludes that there would be significant residual adverse effects on the AONB as a result of the construction and operation of the Project.</p> <p>As stated in Planning Statement [APP-495] paragraph 8.7.15:</p>

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		<p><i>'Chapter 6 and Appendix F to this Planning Statement explain how the Applicant has afforded great weight to the impacts on the AONB. They also demonstrate the compelling reasons that exist to justify these impacts and establish that the Project benefits very significantly outweigh the disbenefits in terms of the defined and overriding need for the Project, the absence of viable route alternatives with fewer adverse impacts within the AONB and the stated policy support for the Project as a major new road infrastructure project.'</i></p> <p>The weight to be attached to any adverse effects on the AONB is a matter to be judged in the planning balance, in the context of planning policy. Planning Statement Appendix F [APP-501] outlines from paragraph F.5.58 the benefits and environmental costs of the Project. Paragraph F.5.75 concludes: <i>'It is recognised that there are costs associated with the Project, however it is considered that the substantial public and economic benefits of the Project would outweigh the costs very significantly.'</i> Section 85 of the Countryside and Rights of Way Act 2000 has also been taken into account in that assessment.</p> <p>As set out in ES Appendix 7.2: Landscape and Visual Assessment Methodology [APP-377] paragraph 3.7.2, the ES methodology identifies that a moderate effect and above is considered to be 'significant' and can be considered material to decision making. In this respect the Applicant agrees with the Kent Downs AONB Unit that all adverse effects are material and confirms that these have already been taken into account in the planning balance as set out in Chapter 8 of the Planning Statement [APP-495].</p> <p>The Applicant has taken into account any detrimental effects on the AONB as stated in Planning Statement Appendix F [APP-501] paragraph F.5.39, which states: <i>'In line with NPSNN (paragraph 5.151), an assessment has been carried out to consider any detrimental effects of the Project on the environment, landscape, and recreational opportunities within the Kent Downs AONB...'</i>, with the assessment being presented in paragraphs F.5.40 to F.5.57 of Planning Statement Appendix F [APP-501]. This assessment has then been taken into account in the planning balance as stated in Planning Statement [APP-495] paragraph 8.7.15, as set out above.</p>
ExQ1_Q12.2.8	N/A	<p>Utility Diversions</p> <p>Paragraph 5.6.7 of the Planning Statement [APP-495] states that "as explained in the ES, a number of different options were considered for the [utility] realignments informed by environmental survey and close dialogue with stakeholders and the utilities companies." Paragraph 5.6.8 adds that "the only engineering alternative, to avoid diversion within the AONB, would be to reconfigure local utility networks from</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Gravesend to the M2 junction 1 via the A226 and local road networks ... and such reconfiguration would give rise to significant impacts on traffic/air quality, programme length and entail engineering complexities, while still requiring work within the AONB.” Paragraph 5.6.10 concludes that “the options taken forward and the further design refinements demonstrate that the measures that have been adopted minimise their impact on these designations as far as practicable.” The ES provides limited information on the impact of Utility Diversions and specifically the impact that these would have on landscape character and visual receptors. The Applicant should provide a separate Chapter within the ES which covers these impacts. It is noted that Planning Statement Appendix B [APP-497] breaks down each section of the relevant Energy National Policy Statements and cross refers the ExA to other parts of the ES which may cover the energy requirements; however, this does not specifically address the potential impacts of the utility diversions. It is also noted that when referring to Landscape and Visual Impacts in Planning Statement Appendix B [APP-497] the Applicant states that “as the energy infrastructure elements of the Project are for replacement infrastructure it is considered that any landscape and visual impacts will be no worse than those arising from the existing infrastructure even though some of pylons involved in Work No OH7 are taller than those that currently exist.” Nonetheless, the Applicant is required to undertake and provide the ExA with a specific Utility Diversions Assessment for LVIA purposes.</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>The Applicant notes that the effects of utility diversion works are taken into account in Environmental Statement (ES) Chapter 7: Landscape and Visual [APP-145].</p> <p>Information on the utilities works assessed is presented in the Utilities works subsection of ES Chapter 2: Project Description [APP-140], paragraphs 2.4.103 onwards. As noted in paragraph 2.4.106, 'The proposed utility diversions are shown in the Works Plans [REP3-033 to REP3-037, AS-028 and REP3-039 to REP3-041]. Overhead powerline diversions, including proposed heights, are included in the Engineering Drawings and Sections [REP3-051, REP3-053, APP-032, APP-033, REP3-055, REP1-035, APP-036 and APP-037]'.</p> <p>The assessments presented throughout the ES topic chapters take account of all works to which the Development Consent Order (DCO) relates, reflecting the fact that they all form part of an integrated Project. As noted in paragraph 2.4.105, 'The design of the utilities works has been developed within the context of the landscape, visual appearance and the potential impacts of the Project.' These works would not be developed and implemented in isolation from the rest of the Project and hence they are assessed as an integral component.</p> <p>The impact of utility diversions on landscape receptors is set out in Tables 2.1, 2.2 and 2.3 of ES Appendix 7.9: Schedule of Landscape Effects [APP-384] under the sub-heading 'Project utility works – nature of effects'. The impact of utility diversions on visual receptors is set out in Tables 2.1 and 2.3 of ES Appendix 7.10 Schedule of Visual Effects [APP-385] under the sub-heading 'Project utility works – nature of effects'.</p> <p>The assessment of the magnitude and significance of effects reported in ES Appendix 7.9 and ES Appendix 7.10 considers the combined effects of the Project including utility works because these would be experienced together and separate assessments would not provide a realistic assessment of the overall effects of the Project.</p> <p>Notwithstanding, ES Appendix 7.9 and ES Appendix 7.10 do include commentary on the nature of effects anticipated as a result of the Project utility works relative to the landscape or visual receptor concerned, using terminology aligned to the descriptors of magnitude of effect set out in the Design Manual for Roads</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>and Bridges LA 107 Landscape and visual effects⁷. For example, (relevant terminology in bold text) the landscape impact assessment of effects on the Kent Downs Local Landscape Character Area (sub-area Cobham) in ES Appendix 7.9, concludes that ‘Overall, the utility works would result in a very minor loss of landscape elements and slight damage to existing landscape character within the West Kent Downs (sub area Cobham) LLCA’. This aligns with the descriptor in Table 3.43 of LA 107 for a minor adverse magnitude of change: ‘Slight loss or damage to existing landscape character of one (maybe more) key features and elements; and/or addition of new uncharacteristic features and elements’. Another example is the visual impact assessment for Representative Viewpoint S-03 in ES Appendix 7.10 which concludes that ‘Overall, the utility works would result in a noticeable change to the view’. This aligns with the descriptor in Table 3.43 of LA 107, for a moderate magnitude of effect: ‘The project, or a part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor’.</p> <p>In conclusion, the Applicant’s assessment of significant effects of the Project on landscape receptors includes the effects of the utility diversions. It would not be meaningful to separate out the effects of the utility diversions alone, as they would not occur in isolation. Other elements of the Project, including the Project road, earthworks and landscape planting, for example, as well as the utility diversions, would have combined impacts on landscape receptors. Therefore, the Applicant does not consider that a separate assessment should be provided.</p>
ExQ1_Q12.2.9a	N/A	<p>Compensation Fund</p> <p>The ExA is concerned about the impact on the Thames Chase Community Forest as a greenspace and community endeavour. Why has the Applicant not considered Thames Chase for a community environmental compensation fund to aid its conservation and enhancement after project delivery?</p>

⁷ Highways England (2020). Design Manual for Roads and Bridges, LA 107 Landscape and visual effects.
<https://www.standardsforhighways.co.uk/search/bc8a371f-2443-4761-af5d-f37d632c5734>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>The Applicant has not considered Thames Chase Community Forest for a community environmental compensation fund as the land at the existing Thames Chase Forest Centre would be replaced by land of an equivalent or better provision in terms of quantity and quality in a suitable location. This is set out on pages 43–46 of the Planning Statement Appendix D: Open Space [REP3-108].</p> <p>The Applicant’s mitigation proposals would aid the conservation and enhancement of Thames Chase Forest Centre and include the provision of a large area of mitigation planting to the south and further mitigation planting to the north as well as the provision of a footbridge over the M25 that links the two parts of their existing site.</p> <p>As such, the replacement land would be larger in quantity, equally or more accessible, useful and attractive, and its overall quality would be comparable to current land. Therefore, it would be no less advantageous to the persons using the site as public open space.</p> <p>The Thames Chase team and the Applicant have worked collaboratively on the issues raised in the Statement of Common Ground (SoCG) , which does not identify any ‘unmitigated impacts’. The Thames Chase team has also undertaken regular engagement with the Applicant on the design for the replacement landscaping for the temporary land-take as well as the permanent landscaping for the earthworks in relation to the Project slip road.</p> <p>The Applicant has also supported applications for designated funds to help deliver some of the wider aims of Thames Chase. The Applicant will continue to support Thames Chase in further application for funds during the delivery of the Project.</p>
ExQ1_Q12.2.9b	N/A	<p>Compensation Fund</p> <p>The ExA is also concerned about the residual impact on the Kent Downs AONB and asks the Applicant to consider whether financial compensation for unavoidable harm to the AONB is appropriate. The Kent Downs AONB Unit has identified precedent for financial compensation in its Written Representation [REP1-378] and the Applicant is asked to update the ExA with any progress on an agreed financial compensation proposal. It is noted from the Statement of Common ground between the two parties [REP1-062] that this is a matter still under discussion.</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>The current position with regard to compensatory enhancement measures is detailed in item 2.1.26 of the Statement of Common Ground [REP1-063], which states that ‘<i>The Applicant is continuing to work collaboratively with the AONB Unit to consider their suggestions for additional compensatory enhancement measures, which are subject to ongoing discussion.</i>’ Potential financial compensation measures are still a matter under discussion.</p> <p>The intention is that financial compensation would be provided to the Kent Downs AONB Unit through a Section 106 Agreement with Kent County Council. A draft Heads of Terms has recently been shared with the AONB Unit for review and comment.</p>
ExQ1_Q12.3.2	N/A	<p>Representative Viewpoints – Regrading of Sensitivity and Effects</p> <p>The Kent Downs AONB Unit and Gravesham Borough Council have identified that the sensitivity of Representative Viewpoints with the highest degree of sensitivity (Very High) has reduced in number from 22 Representative Viewpoints in 2020 to 7 in 2022 (south of the River). The magnitude of effect and significance of effect on these receptors has also been notably regraded. For example, the overall magnitude/significance of effect on viewpoints S08 and S09 in Design Year has been assessed as ‘Minor/Slight Adverse’ in the 2022 documents (and therefore not ‘significant’) whereas in the 2020 documents they were both assessed as ‘Major/Very Large Adverse’ (i.e. the highest rating for negative effects) and therefore ‘significant’. In addition, the overall effect on viewpoints S12, S13 and S14 has been assessed as ‘Minor/Slight Beneficial’ (and therefore ‘not significant’) whereas in the 2020 documents they were all assessed as ‘Moderate/Large Adverse’ (and therefore significant). The Applicant is required to clarify why the sensitivity and magnitude of effects have been notably regraded since the 2020 submission. Notwithstanding the information contained in Tables 3.1 and 3.3 in ES Appendix 7.10 - Schedule of Visual Effects [APP-385], the Applicant shall provide an additional Table similar to Appendix A in the Kent Downs AONB Written Representation [REP1-379] for all visual receptors north and south of the river with commentary to justify the regrading.</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>Since the Development Consent Order (DCO) application submitted in October 2020 was withdrawn, a thorough review of the visual impact assessment in Environmental Statement (ES) Chapter 7: Landscape and Visual [APP-145] has been undertaken, including a review of sensitivity, in conjunction with further refinement of the Project design. The assessment of sensitivity considers both the baseline conditions and the Project design, in accordance with the overarching best practice guidelines set out in the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3)⁸. Paragraph 3.26 of GLVIA3 states that ‘...sensitivity [is] made up of judgements about:</p> <p style="padding-left: 40px;"><i>The susceptibility of the receptor to the type of change arising from the specific proposal; and</i></p> <p style="padding-left: 40px;"><i>The value attached to the receptor.</i>’ (emphasis added)</p> <p>Responses to the issues raised by the Kent Downs Area of Outstanding Natural Beauty (AONB) Unit in its Written Representation (WR) [REP1-378] and Gravesham Borough Council in its Local Impact Report (LIR) [REP1-228] have been provided within the Applicant’s Comments on WRs Appendix A: Statutory Environmental Bodies [REP2-046] and Comments on LIRs Appendix D: Gravesham Borough Council [REP2-058]. As requested by the Examining Authority, this information has been presented in Annex B and includes Representative Viewpoints north and south of the River Thames.</p> <p>The Applicant notes that, as well as a reduction in certain levels of visual effect compared with the withdrawn 2020 DCO application, there are several instances where the levels of visual effect have been increased to reflect the current Project design.</p>
ExQ1_Q12.3.3	N/A	<p>Photomontage Reliability 3</p> <p>A number of photomontages showing the project in Winter Year 1 and Summer Year 15 included in Figure 7.19 [APP-244, APP-245, APP-246, APP-247] appear to use cropped images of the baseline images shown in Figure 7.17 [APP-235, APP-236, APP-237, APP-238, APP-239, APP-240, APP-241, APP-242]. For example, Viewpoint S-22 shown in Figure 7.19 is missing the properties in Singlewell on the left hand side of the photomontage shown in baseline Figure 7.17. This appears to misrepresent the possible visual and aural impact for some receptors. The Applicant shall revisit all Photomontages in Figure 7.19 and</p>

⁸ Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment, Third Edition.

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>provide additional uncropped versions of Winter Year 1 and Summer Year 15 where relevant. The Applicant may wish to combine its response with Q.12.2.4.</p> <p>Response:</p> <p>The Applicant confirms that the horizontal field of view of the photomontages in Environmental Statement (ES) Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (1 to 4) [APP-244, APP-245, APP-246 and APP-247], ES Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (2 of 4) [REP1-131], and ES Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (1 of 4) (Version 2.0) [REP3-102] is not intended to match that of the baseline photography provided in ES Figure 7.17: Representative Viewpoints – Winter and Summer Views (1 to 8) [APP-235, APP-236, APP-237, APP-238, APP-239, APP-240, APP-241 and APP-242]. This is because the photomontage extents were determined to include the main Project features. The enlargement factor used for photomontages is larger than that used for the separate baseline photography in ES Figure 7.17, in order to show sufficient detail to realistically convey the scale of the Project in the landscape. The broader extent of baseline photography provided in ES Figure 7.17 is provided for supplementary landscape context only and can be read in conjunction with the photomontages if required. The presentation of focussed photomontages and matching photography, as in ES Figure 7.19, along with the wider panoramic photography provided for context in ES Figure 7.17, is widely considered to be in accordance with best practice</p> <p>The purpose of the photomontages in ES Figure 7.19 is to simulate the likely visual changes of the Project, when seen from the relevant Representative Viewpoint. In some cases, other visual receptors feature in the baseline photography. However, these other visual receptors are only included for landscape context and not to illustrate the visual impact on receptors who would experience a different view of the Project compared with that seen from the Representative Viewpoint. In the example given by the Examining Authority for Representative Viewpoint S-22, the photomontage is intended to portray the visual effects of the Project on road user views from Watling Street on the A2 overbridge, rather than residents in Singlewell. The Applicant acknowledges that the photomontages at Representative Viewpoint S-22 (ES Figure 7.19) do not illustrate the change in aspect of the properties seen to the left of the photomontage coverage that are seen in the wider photography in ES Figure 7.17. This is because the photomontages do not show the removal of existing roadside vegetation adjoining the property boundaries. However, an assessment of the visual effects from the residential receptor group, reference VR-S02-R-018, the location of which is shown on ES Figure 7.16 Visual Effects Drawing with Representative Viewpoint and</p>

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		<p>Photomontage Locations [REP1-128], is included in ES Appendix 7.10: Schedule of Visual Effects [APP-385].</p> <p>Providing uncropped versions of the photomontages for Representative Viewpoint S-22 would not be straightforward because it would not be practical to obtain baseline photography of the residential properties and the gardens that would become visible in the view following removal of existing roadside vegetation.. The Applicant does not therefore consider that expanding the current photomontage extents to the full extent of the Representative Viewpoint baseline photography would provide any new information on the Project or alter the findings of the visual impact assessment in ES Appendix 7.10: Schedule of Visual Effects [APP-385].</p>
ExQ1_Q12.3.4	N/A	<p>Photomontage Reliability 4</p> <p>The photomontage of Summer Year 15 for representative viewpoint N-25 shown in Figure 7.19 [APP- 247] includes an extra overbridge railing visible behind the Woolings Close dwellings that is not shown in the Photomontage of Winter Year 1 for the same viewpoint. This appears to be an inconsistency between the photomontages which should be reviewed and rectified by the Applicant. This raises questions over other potential inconsistencies; as a result the Applicant is requested to review all photomontages in Figure 7.19 [APP-244, APP-245, APP-246, APP-247] for any other corrections that need to be made. The Applicant may wish to combine its response with Q.12.2.4 and Q12.3.3.</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>The Applicant acknowledges that there is a minor inconsistency in the winter year 1 and summer year 15 photomontages in Environmental Statement (ES) Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (4 of 4) [APP-247] from Representative Viewpoint N-25. The summer year 15 photomontage better reflects the intended design, and the Applicant has submitted an updated winter year 1 photomontage from Representative Viewpoint N-25 at Deadline 4.</p> <p>A review of all photomontages in ES Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (1 to 4) [APP-244, APP-245, APP-246 and APP-247] has been undertaken, which has identified some further minor discrepancies as set out in Annex C. However, as stated in Annex C, these minor discrepancies do not materially change how the Project would appear in the landscape and do not affect the landscape and visual impact assessment within ES Chapter 7: Landscape and Visual [APP-145]. This is because although the assessment in ES Chapter 7 has been informed by the photomontages presented in ES Figure 7.19, the assessment has also had regard to the full range of Project information in the Development Consent Order application documents.</p> <p>The Applicant also notes that the photomontages illustrate the proposed outline design, which would be further developed at the detailed design stage and refined in accordance with the principles for achieving good design, set out in the relevant clauses of the Design Principles (Version 2.0) [REP3-110].</p>
ExQ1_Q12.3.5	N/A	<p>Additional Photomontages</p> <p>Concerns have been raised by Gravesham Borough Council, the Kent Downs AONB Unit and Natural England about the visual impact of the proposed road from representative viewpoint S-03 (view from Kent Downs AONB on footpath NS161). The ExA shares those views. The Applicant shall provide photomontages for Winter Year 1 and Summer Year 15 for viewpoint S-03 or explain in explicit terms why the photomontages cannot be produced.</p>

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>Response:</p> <p>The Applicant has provided Comments on Written Representations (WRs) Appendix A: Statutory Environmental Bodies [REP2-046] and Comments on Local Impact Reports (LIRs) Appendix D: Gravesham Borough Council [REP2-058], which include responses to the issues raised on the view from Representative Viewpoint S-03 in Natural England's WR [REP1-262], the Kent Downs Area of Outstanding Natural Beauty Unit's WR [REP1-378], and Gravesham Borough Council's LIR [REP1-228]. However, the Applicant will submit new winter year 1 and summer year 15 photomontages from Representative Viewpoint S-03 at Deadline 5, to illustrate the proposed landscape design as requested.</p>
ExQ1_Q12.3.6	N/A	<p>Construction Compounds</p> <p>It is noted that Document 2.17 - Temporary Work Plans Documents Volumes B and C [AS-034 and AS-036] provide indicative layouts for the construction compounds or utility logistics hubs but these are in floorplan only with no elevations. Similarly, none of the compounds and hubs are identified in any LVIA photomontages (noting the photomontages are for operational years only). Given the potential for 6m high earth and plant storage, 15m high accommodation blocks and 25m high concrete batching plant, the layout and appearance of the compounds and hubs is important to the landscape and visual impact assessment during the lengthy construction period. The Applicant shall provide photomontages of the compounds and hubs where they are sited within 100m of residential receptors and where those compounds or hubs are expected to remain in situ for more than 18 months. The Applicant shall use the Register of Environmental Actions and Commitments Nos. LV006/ LV007/ LV010/ LV012/ LV016/ LV018/ LV019/ LV020/ LV022/ LV025/ LV027/ LV033 (contained in ES Appendix 2.2 – Code of Construction Practice, First Iteration of</p> <p>Response:</p> <p>The locations of the proposed Utility Logistics Hubs (ULHs) are shown on the Temporary Works Plans Volume B (Sheets 1 to 20) and Volume C (Sheets 21 to 49) [AS-034 and REP3-071], with indicative layouts shown in Plates 1.18 and 1.19 of Environmental Statement (ES) Appendix 2.1: Construction Supporting Information [AS-049].</p> <p>Although the photomontages in ES Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 [APP-244, REP3-102, APP-245, REP1-131, APP-246 and APP-247] only illustrate the operational phase</p>

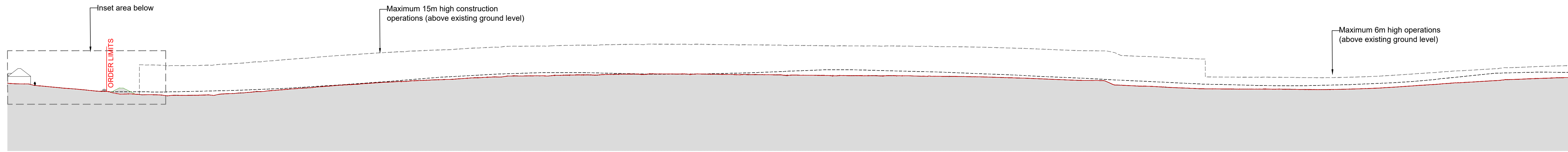
PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>of the Project, the approximate location and extent of each construction compound and ULH is annotated in blue font on Representative Viewpoint photographs in ES Figure 7.17 Representative Viewpoints – Winter and Summer Views [APP-235, APP-236, APP-237, APP-238, APP-239, APP-240, APP-241 and APP-242].</p> <p>In addition, the maximum heights of construction operations within compounds are shown on ES Figure 7.8: ZTV - 5km DTM Analysis of Main Construction Compounds [APP-204 and APP-205], where either the duration of the works exceeds five years or the proposed construction activity includes features over 15m high, as explained in paragraph 4.5.2 of ES Appendix 7.8: Technical Methodologies [AS-054]. Further information on assumed heights within construction compounds is provided in paragraph 4.5.2 of ES Appendix 7.8.</p> <p>Due to the ULHs being predominantly '<i>for the receipt, storage and distribution of plant, machinery and materials for specific utilities works</i>', as stated in Table 2.10 of ES Chapter 2: Project Description [APP-140], it is envisaged that there would be a smaller number of modular units compared to the construction compounds and all of the units would be single storey in height (assumed to be maximum 3m high).</p> <p>The above information has been used to inform the landscape and visual impact assessment in ES Chapter 7: Landscape and Visual [APP-145].</p> <p>The measures referred to by the Examining Authority in the Register of Environmental Actions and Commitments (REAC) set out in ES Appendix 2.2: Code of Construction Practice, First Iteration of Environmental Management Plan (Version 3.0) [REP3-104] relate to the following construction compounds:</p> <ul style="list-style-type: none"> • LV006: Marling Cross compound • LV007: A2 compound • LV010: Southern tunnel entrance compound • LV012: A226 Gravesend Road compound • LV016: Station Road compound • LV018: Brentwood Road compound • LV019: Stifford Clays Road compound East • LV020: Mardyke compound

PINS ID	External Stakeholder (where applicable)	Question / Response
		<ul style="list-style-type: none"> • LV022: M25 compound • LV025: Ockendon Road compound • LV027: Warley Street compound • LV033: Long Lane compound A <p>All the above construction compounds would be in place for over 18 months, but the Station Road compound, Brentwood Road compound, M25 compound, Warley Street compound and Long Lane compound A would be further than 100m from a dwelling and the Applicant does not therefore propose to prepare visualisations of these more distant compounds. Only the Long Lane ULH and the Stanford Road ULH would be both in place longer than 18 months and within 100m of a residential receptor. However, as explained above, the maximum height of these ULHs is assumed to be no greater than 3m so the visual impacts would be limited. The Applicant does not therefore propose to prepare any visualisations of ULHs.</p> <p>For the operational phase of the Project, 3D models of the outline Project design have been used to prepare photomontages in ES Figure 7.19. However, the equivalent level of information is not available for the proposed construction compounds and ULHs. This is because the exact layout of the compounds has yet to be designed and the internal layouts shown in Plates 1.1 to 1.17 of ES Appendix 2.1: Construction Supporting Information [AS-049] serve as illustrative representations. The compound layouts will be designed in accordance with the requirements of the Development Consent Order (DCO) [REP3-077] during the construction phase once the detailed design and construction methodology have been established.</p> <p>Sufficient information is therefore only available to prepare indicative visualisations to show the worst-case, maximum height, scale and massing of the proposed construction compounds. However, the Applicant does not consider indicative photomontages, for example wireline photomontages, to be the most appropriate format because Representative Viewpoints in ES Figure 7.17 have been photographed from publicly accessible viewpoints in accordance with best practice guidance in paragraph 6.16 of the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3)⁹. Furthermore, a wireline photomontage is likely to be difficult to interpret in close-range views within 100m from a residential receptor.</p>

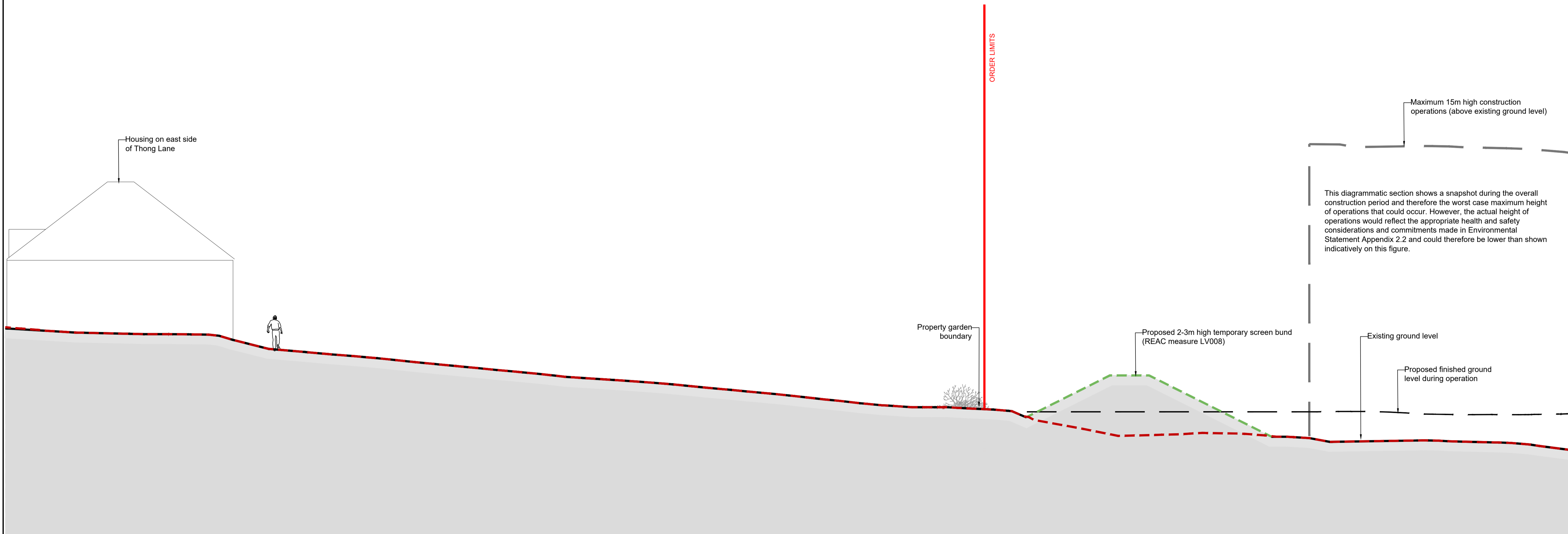
⁹ Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment, Third Edition.

PINS ID	External Stakeholder (where applicable)	Question / Response
		<p>By contrast, diagrammatic sections can be prepared to scale from any residential location and would illustrate the spatial relationship between a compound and adjoining residential area. The Applicant therefore proposes to prepare a series of diagrammatic construction sections, drawn to scale, showing the spatial relationship of the following construction compounds to nearby residential receptors by Deadline 5, based on the sample section provided with this response (see Figure 1). The selection below has been made because the compound:</p> <ul style="list-style-type: none"> • Is referred to in the REAC measures in ES Appendix 2.2: Code of Construction Practice, First Iteration of Environmental Management Plan, which the Examining Authority has directed the Applicant to • Would be in place for over 18 months • Would be located within 100m of a dwelling • The maximum height of construction activity would be over 3m: • LV006: Marling Cross compound, in relation to the south-eastern edge of Gravesend • LV007: A2 compound, in relation to Thong Mead and the southern edge of Thong • LV010: Southern tunnel entrance compound, in relation to the eastern edge of Gravesend • LV012: A226 Gravesend Road compound, in relation to properties along Castle Lane, Chalk • LV019: Stifford Clays Road compound East, in relation to two properties on Stifford Clays Road • LV020: Mardyke compound, in relation to Hobletts • LV025: Ockendon Road compound, in relation to The Railway Sidings travellers' site

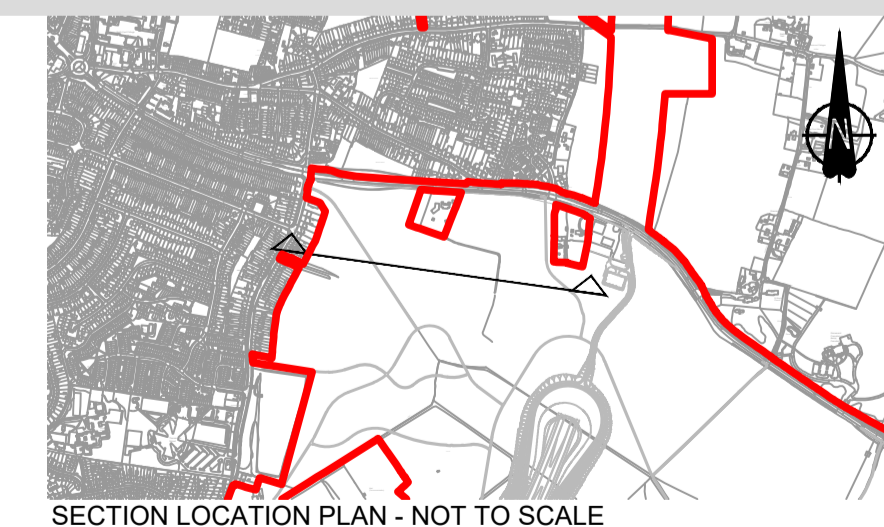
Figures



01 Long Cross Section
00544 1:1000



02 Cross Section - Inset
00544 1:100



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Rev	Status	Rev. Date	Purpose of revision	Drawn	Chck'd	Apprv'd
P01.1	S8	2023/09/12	DEADLINE 4	KB	AK	JB

- NOTES**
- Do not scale from this drawing. Do not take digital dimensions from this drawing.
 - All dimensions in metres and all levels in metres unless shown otherwise.
 - All levels relate to Ordnance Survey datum unless stated otherwise.
 - This drawing is indicative only.
 - Craneage is not shown on this diagrammatic section because locations are not fixed and craneage would only be intermittently present for part of the overall construction period.
 - This drawing is to be read in conjunction with Plate 1.3 of 6.3 Environmental Statement - Appendix 2.1 - Construction Supporting Information [AS-049].
 - For details of the commitments relating to construction compounds, reference should be made to Environmental Statement Appendix 2.2 - Code of Construction Practice, First iteration of Environmental Management Plan [REP1-157]

KEY

EXISTING GROUND LEVEL	PROPOSED MAXIMUM EXTENT OF OPERATIONS
PROPOSED TEMPORARY GROUND LEVEL DURING CONSTRUCTION	ORDER LIMITS
PROPOSED GROUND LEVEL DURING OPERATION	EXISTING VEGETATION

Client
national highways

Project
LOWER THAMES CROSSING

5th Floor Beaufort House
15 St Botolph Street
London EC3A 7DT

Status
DCO EXAMINATION

Original Size **A1** | Revision **P01.1**
Scale **AS SHOWN**

Drawing title
SOUTHERN TUNNEL ENTRANCE COMPOUND - DIAGRAMMATIC SECTION

Drawing number
HE540039-CJV-SAR-ZZZ_ZZZZZZZZ-DR-ZZ-00544

Annexes

Annex A Less Than Substantial Harm table

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
LB153	Grade II Listed	1250606	HOLE FARMHOUSE	High	None	LE8.7 Nitrogen Deposition Planting Mitigation would take place in the fields surrounding the asset. This would not be a highly visually-intrusive activity compared to road construction, and the temporary impact caused by this is assessed to be negligible.	None	Negligible	Temporary Slight Adverse	The high-value Grade II listed "Hole Farmhouse" is located south of Great Warley and is largely surrounded by land within the Order Limits (although the asset itself is outside the Order Limits). The majority of the fields around the asset would change in use from arable land to LE8.7 Nitrogen Deposition Planting Mitigation (which would include a mixture of woodland and open glades). The asset would become largely divorced from its agricultural setting and lose its functional historical connection with the surrounding farmland. The effect is assessed as moderate rather than large due to the lack of physical harm to the fabric building and its curtilage.	None	Moderate	Moderate adverse	North
LB11	Grade II Listed	1079926	THE RECTORY	High	None	Sited in the vicinity of the Order Limits off Church Lane, construction activity would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery. This would cause a minor adverse impact to this high value asset, as the key relationship with the church of St Mary Magdalene would not be affected. The effect is assessed as slight rather than moderate as the key elements of the asset's setting that contribute to its value would not be harmed.	Good practice	Minor	Temporary Slight Adverse	The asset is located within the settlement of North Ockendon and its relationship with the village and the church would not be altered.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
LB37	Grade II Listed	1111566	WHITECROFTS FARMHOUSE	High	None	The main alignment (A13 junction) and associated earthworks would be constructed immediately to the north and west of the asset, with associated visual and aural disturbance to its setting. The Stanford Road Compound would also be established c. 300m to the south-east of the asset.	Good practice	Moderate	Temporary Moderate Adverse	The high-value Grade II listed "Whitecrofts Farmhouse" (LB37), now a care home, is located immediately south of the Order Limits, adjacent to the A1013. The main alignment (A13 junction) and associated earthworks would be present immediately to the north and west of the asset, altering the character of the formerly associated agricultural and in these directions and in very close proximity to the asset.	Woodland planting	Moderate	Moderate adverse	North
LB57	Grade II Listed	1111643	BAKER STREET WINDMILL	High	None	Baker Street Windmill (LB57) is located on the outskirts of the settlement of Baker Street, c. 60m to the east of the Order Limits. Utility diversion works for multi-utility networks would take place in the closest part of the Order Limits to the asset. Extensive construction activity for the A13/A1089/A122 Lower Thames Crossing junction, including the creation of earthwork embankments, would take place c. 75m to the south-west of the asset within a rural part of its setting that contributes to its value. The construction activity would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery. This would result in a temporary impact of moderate adverse	Good practice	Moderate	Temporary Moderate Adverse	A significant effect is predicted due to the operation of the Project on Baker Street Windmill (LB57), a Grade II listed building located c. 70m east of the northern part of the A13/A1089/ A122 Lower Thames Crossing junction. The existing rural land to the west of the asset would be replaced by the junction, including the roads themselves, earthwork embankments and ditches and landscape mitigation planting. This would greatly change the character and topography of a part of the setting of the asset that makes a contribution to its value. However, it should be noted that earthwork embankment adjacent to the main alignment would be at their lowest point in closest proximity to the asset, increasing in height towards the south as they continue away from the asset. This would retain a degree of openness in the vicinity of the asset, although this would be slightly lessened by planting on the embankment (LE2.11 Woodland with Non-Native Species). The noise levels in the vicinity of the asset would not greatly increase as a result of the operation of the Project.	Earthworks and planting	Moderate	Moderate adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						magnitude and a moderate adverse effect, which is assessed as significant. The effect is assessed as moderate rather than large due to the lack of physical harm to the asset and lack of harm to other elements of its setting that contribute to its value such as its relationship with Baker Street.				Night-time light levels are likely to increase, due to the presence of 10m, 12m and 15m-tall Post Top lighting columns along the junction alignment. An overhead gantry would be located c. 166m to the south-west of the asset, although this would be screened by intervening tree planting (LE2.11 Woodland with Non-Native Species). As a windmill, the asset was built in open countryside which would enable strong winds to power its sails. This connection with the open countryside has already been somewhat eroded by the existing A13 junction c. 240m to the south-west and it would be further eroded by the operation of the Project. Consequently, the operation of the Project would cause a permanent impact of moderate adverse magnitude to this high value asset and a moderate adverse effect, which is significant				
LB109	Grade II Listed	1358548	BARN AND STABLE BLOCK TO THE NORTH OF BROADFIELDS FARMHOUSE	High	None	Sited immediately to the north-west of the Order Limits, activity associated with utility diversion works c. 60m south-east of the asset and construction of the main alignment c. 90m south-east of the asset (and associated vegetation removal) would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery. The effect is assessed as slight rather than moderate due to the fact that the majority of the elements of	Good practice	Minor	Temporary Slight adverse	The asset is located adjacent to the existing route of the M25. The Project would increase the scale of the road infrastructure adjacent to this heritage asset, although its rural setting would remain intelligible. This would be mitigated by landscape planting - LE2.11 Woodland with Non-Native Species to replace some of the removed vegetation and to screen the road from view. The effect is assessed as slight rather than moderate due to the fact that the majority of the elements of the setting of the asset that contribute to its value would remain unharmed.	LE2.11 Woodland with Non-Native Species	Minor	Slight adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						the setting of the asset that contribute to its value would remain unharmed.								
LB128	Grade II Listed	1111553	OLD RECTORY	High	None	Construction activity would take place in the field adjacent to the asset to establish an NMU route and ecological mitigation areas (LE6.41 Marsh and Wet Grassland - Coastal Grazing Marsh, LE6.2 Banks and Ditches (Polygon) and LE6.12 Water Bodies and Associated Plants - Shallow Scrape). The field in which the ecological mitigation takes place would also be used for light vehicle access to the northern tunnel construction compound. These works would introduce a small degree of visual and aural disturbance to the rural setting of the asset. The minor impact would result in a slight, rather than moderate, effect due to the minor scale of work in close proximity.	Good practice	Minor	Temporary Slight Adverse	The distantly visible earthworks around the North Tunnel Portal would not harm the value of this asset.	None	No change	Neutral	North
LB134	Grade II Listed	1146774	GUN HILL FARMHOUSE	High	None	The online utilities access route along Gun Hill and the multi-utility network works c.100m to the east of the asset would introduce construction traffic and activity which would disturb the rural setting of the asset. This would result in a minor impact and slight rather than moderate adverse effect, due	Good practice	Minor	Temporary Slight adverse	Although elements of the operational scheme could be very distantly visible c. 2km to the south-east of the asset, these would not harm an element of its setting that contributes to its value.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						to the small scale of change to the setting of the asset.								
LB169	Grade I Listed	1337129	CHURCH OF ST KATHERINE	High	None	Construction activity would take place in the field opposite the church to establish an NMU route and ecological mitigation areas (LE6.41 Marsh and Wet Grassland - Coastal Grazing Marsh, LE6.2 Banks and Ditches (Polygon) and LE6.12 Water Bodies and Associated Plants - Shallow Scrape). The field in which the ecological mitigation takes place would also be used for light vehicle access to the northern tunnel construction compound. These works would introduce a small degree of visual and aural disturbance to the rural setting of the asset. The minor impact would result in a slight, rather than moderate, effect due to the minor scale of work in close proximity.	Good practice	Minor	Temporary Slight Adverse	The distantly visible earthworks around the North Tunnel Portal would not harm the value of this asset.	None	No change	Neutral	North
LB203	Grade II Listed	1111568	WALTONS HALL	High	None	Minor construction activity for OHL restringing and establishment of associated utilities offline access routes would take place adjacent to the asset. This would not alter its relationship with neighbouring buildings or the surrounding farmland that contribute to its value. The effect is assessed to be slight adverse rather than	None	Temporary Negligible	Temporary Slight adverse	The setting of the asset does not extend to the operational Project.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						moderate as the construction activity would not greatly alter the relationship between LB203, LB204, LB212 and LB217 or the surrounding farmland which contribute to their value.								
LB204	Grade II Listed	1111569	SUTTON'S FARMHOUSE	High	None	Minor construction activity for OHL restringing and establishment of associated utilities offline access routes would take place adjacent to the asset. This would not alter its relationship with neighbouring buildings or the surrounding farmland that contribute to its value. The effect is assessed to be slight adverse rather than moderate as the construction activity would not greatly alter the relationship between LB203, LB204, LB212 and LB217 or the surrounding farmland which contribute to their value.	None	Temporary Negligible	Temporary Slight adverse	The setting of the asset does not extend to the operational Project.	None	No change	Neutral	North
LB205	Grade I Listed	1111576	CHURCH OF ST MARY	High	None	Sited adjacent to the Order Limits along Brentwood Road, construction activity (utility diversions for multi-utility networks along Brentwood Road) would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery. However, this would not affect its relationship with the settlement of Chadwell St Mary or	None	Negligible	Temporary Slight Adverse	The setting of the asset does not extend to the operational project.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						any of the other principal elements of its setting that contribute to its value.								
LB211	Grade II Listed	1166282	CHADWELL HOUSE	High	None	Sited adjacent to the Order Limits along Brentwood Road, construction activity (utility diversions for multi-utility networks along Brentwood Road) would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery.	None	Negligible	Temporary Slight Adverse	The setting of the asset does not extend to the operational Project.	None	No change	Neutral	North
LB212	Grade II Listed	1307175	TURNERS FARM	High	None	Minor construction activity for OHL restringing and establishment of associated utilities offline access routes would take place adjacent to the asset. This would not alter its relationship with neighbouring buildings or the surrounding farmland that contribute to its value. The effect is assessed to be slight adverse rather than moderate as the construction activity would not greatly alter the relationship between LB203, LB204, LB212 and LB217 or the surrounding farmland which contribute to their value.	None	Negligible	Temporary Slight Adverse	The setting of the asset does not extend to the operational Project.	None	No change	Neutral	North
LB213	Grade II Listed	1337061	SLEEPERS FARMHOUSE	High	None	Sited adjacent to the Order Limits along Brentwood Road, construction activity (utility diversions for multi-utility networks along Brentwood Road) would cause	None	Negligible	Temporary Slight Adverse	The setting of the asset does not extend to the operational Project.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery.								
LB217	Grade II Listed	1337098	WEATHERBOARD BARN AT WALTONS HALL	High	None	Minor construction activity for OHL restringing and establishment of associated utilities offline access routes would take place adjacent to the asset. This would not alter its relationship with neighbouring buildings or the surrounding farmland that contribute to its value. The effect is assessed to be slight adverse rather than moderate as the construction activity would not greatly alter the relationship between LB203, LB204, LB212 and LB217 or the surrounding farmland which contribute to their value.	None	Negligible	Temporary Slight Adverse	The setting of the asset does not extend to the operational Project.	None	No change	Neutral	North
LB33	Grade II* Listed	1111541	CHURCH OF ST JAMES	High	None	Construction activity would cause small temporary changes to the setting of this asset by introducing additional noise, lighting and construction traffic along Coopers Shaw Road and Church Road (which would be used as main work construction secondary access routes) c. 180m to the east of the asset. Utility works would take place across the open land c.180m south of the asset, situated at the bottom of Hall Hill.	Good practice	Minor	Temporary Slight adverse	The operational alignment (at Tilbury Viaduct) would be located c. 920m east of the asset. Parts of the operational alignment further to the south-east are likely to be distantly visible from the asset, but this will not harm its value.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						The Northern Tunnel Entrance Compound would be located c. 680m south-east of the asset. These works would not alter its relationship with West Tilbury or impede long-distance views to and from the church across the former Tilbury Marshes. The visual disturbance to the semi-rural setting of the asset would result in a minor impact. The minor impact is assessed to result in a slight adverse effect rather than moderate effect due to the scale and nature of the impacts and the fact that the primary elements of the setting that contribute to the value of the asset will not be harmed.								
LB115	Grade II Listed	1079879	FRANKS FARMHOUSE	High	None	The high value Grade II listed Franks Farmhouse (LB115) is sited approximately c. 55m west of the Order Limits. Construction activity for the A122 northbound link road and enlargement of the M25 would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery. This would result in a temporary impact of minor adverse magnitude and a slight adverse effect, which is assessed as not significant. The effect is assessed is	Good practice	Minor	Temporary Slight Adverse	The asset is located adjacent to the existing route of the M25. The Project would slightly increase the scale of the motorway infrastructure adjacent to this heritage asset, resulting in a minor impact. The effect is assessed as slight rather than moderate due to the low scale of change relative to the existing M25-adjacent setting of the asset.	To limit the land required adjacent to Franks Farmhouse (LB115) and the property of St Mary's Lane, a retaining wall rather than earthworks would be provided. Either soft landscaping would be provided to soften the visual impact of the structures or planted green walls would be provided (Design	Minor	Slight adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						slight rather than moderate due to the scale of change in the context of the setting of the asset, located next to the existing M25.					Principle S14.09).			
LB38	Grade II Listed	1111567	GREYGOOSE FARMHOUSE	High	None	The asset is sited c. 90m to the south of Order Limits, between the A13 and Chadwell St Mary. Construction activity would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery to the north, east and more distantly to the south-east. This would result in a minor impact and a temporary slight adverse effect. The effect is assessed as minor rather than moderate as the rural setting of the asset has already been somewhat eroded by the presence of the A13 and encroachment of the Chadwell St Mary suburbs.	Good practice	Minor	Temporary Slight Adverse	The asset would experience a change to its setting as a result due to the establishment of the A13/A1089/A122 junction in farmland c. 440m to the east of the asset.	None	Negligible	Slight adverse	North
LB40	Grade II Listed	1111574	HEATH COTTAGE	High	None	Sited adjacent to the Order Limits construction activity would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery, from the construction of the main alignment, utility works and Hornsby Lane Utility Hub which would be located c. 300 to the	Good practice	Minor	Temporary Slight Adverse	The Project would introduce further modern transport infrastructure into the semi-rural setting of this asset. The effect is assessed as slight rather than moderate as the primary elements of the asset's setting that contribute to its value (its grounds and association with Hornsby Lane) would not be harmed.	Earthworks and reinstatement of agricultural land	Minor	Slight adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						east of the asset. The farmland immediately adjacent to the rear and south-east of the asset would not be altered. The effect is assessed as slight rather than moderate as the primary elements of the asset's setting that contribute to its value (its grounds and association with Hornsby Lane) would not be harmed.								
LB42	Grade II Listed	1111577	MILL HOUSE	High	None	The asset is sited immediately to the north of the Order Limits on Muckingford Road. Construction activity including hedgerow removal on the south side of the road, the establishment of an online utilities access route and utility diversion works for multi-utility networks would result in temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery. The effect is assessed as slight rather than moderate as the historically-associated buildings and farmland to the west of the asset would not be harmed, and views southward across the Great Common Field would remain.	None	Minor	Temporary Slight Adverse	Establishment of an NMU route along the southern side of the Muckingford Road would not harm the value of the asset.	None	No change	Neutral	North
LB45	Grade II Listed	1111608	SLADES HOLD COTTAGES	High	None	The asset is located within Baker Street, on the southern side of High Road which would be used as to	Good practice	Negligible	Temporary Slight Adverse	The operational Project would be located beyond the setting of the asset.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						an online construction access route. Utility diversions for multi-utility networks would also take place along High Road. This would introduce additional noise and visible construction activity into the asset's setting.								
LB41	Grade II Listed	1111575	HEATH PLACE	High	None	The high-value Grade II listed "Heath Place" is located immediately to the south of the Order Limits. Other areas of the Order Limits are also located between 150m to 200m east, west and south of the asset. The Brentwood Road compound would be established c. 160m east of the asset, the Stanford Road Compound c. 290m to the west and Hornsby Lane Utility Hub c. 370m to the south. The main alignment would be constructed c. 200m south of the asset and multi-utility network works would take place immediately to the north of the asset. The visual and aural impact of construction, taking place within the rural setting of the asset that contributes to its value, is assessed to result in a temporary impact of moderate adverse magnitude and a moderate adverse effect, which is assessed as significant. The effect is assessed as	Good practice	Moderate	Temporary Moderate Adverse	The high-value Grade II listed "Heath Place" (LB41) is located immediately to the south of the Order Limits, on the northern slope of an east-west dry valley. Other areas of the Order Limits are also located between 150m to 200m east, west and south of the asset. The operational alignment and associated false cutting earthwork banks would be located c. 200m south of the asset, at the bottom of the valley in which it is located. This would represent a large erosion of the remaining agricultural landscape around the asset, which has already been encroached upon by the A13 c. 550m to the north, the A1089 c. 900m to the west and suburban development on the fringes of Chadwell St Mary c. 600m to the south-east. This would result in the asset becoming largely "islanded" within a small surviving area of agricultural land with the main alignment in relatively close proximity. Overall, the operation of the Project would result in a permanent impact of moderate adverse magnitude and a moderate adverse effect which is significant. The effect is considered to be slight rather than moderate due to the lack of physical harm to the asset and the fact that some of the rural land around the asset will be	Reinstatement of agricultural land used for temporary works	Minor	Slight adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						moderate rather than large due to the temporary nature of the impact and lack of physical harm to the asset.				preserved, enabling its illustrative historical value as a former farmhouse to be preserved.				
LB48	Grade II Listed	1111623	POLWICKS	High	None	Sited adjacent to the Order Limits, construction activity would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery into its setting. Church Road immediately south of the asset would be used as a Mains Work Construction Access Route (secondary access). The Northern Tunnel Entrance Compound would be located c. 155m south-east of the asset and Low Street Lane Utility Hub would be located c. 35m to the north. Construction of the main alignment (Tilbury Viaduct) would take place c. 250m east of the asset. The effect is considered to be moderate rather than large due to the temporary nature of the impact and the fact that the physical fabric of the building will not be harmed.	Good practice	Moderate	Temporary Moderate Adverse	The main alignment would be located approximately 250m east of the asset and would introduce additional noise and modern infrastructure including the Tilbury Viaduct into its setting. The operational noise change would be between 5db and 10db, a moderate adverse change in noise terms. The eastern side elevation of the building that faces the viaduct is largely windowless and so no principal views would be compromised. Lighting columns would also be present on Church Road from c. 50m east of the asset, changing the character of the semi-rural night-time setting. The curtilage and grounds of the asset would not be physically affected, nor would its relationship with Church Road, the hamlet of Low Street and settlement of West Tilbury, or the surrounding agricultural landscape in general. As a result the impact is assessed as minor and is assessed to result in a slight rather than a moderate adverse effect.	None	Minor	Slight adverse	North
LB5	Grade II Listed	1079868	KILBRO	High	None	The asset is located on the eastern side of the B186 within North Ockendon Conservation Area (CA4) and immediately east of the Order Limits which include the B186. The B186	Good practice	Negligible	Temporary Slight Adverse	The operational Project would not impact upon any elements of the asset's setting that contribute to its value.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						would be used as a short-term online main construction access route and utility diversions for multi-utility networks would also take place within the road. This would introduce additional noise and visible construction activity into the asset's setting.								
LB50	Grade II Listed	1111625	WEST TILBURY HALL	High	None	A mains work construction secondary access routes would be situated along Coopers Shaw Road and Church Road c. 240m to the east of the asset. Utility works would take place across the open land c. 140m to the south-west of the asset, situated at the bottom of Hall Hill. The Northern Tunnel Entrance Compound would be located c. 750m south-east of the asset. These works would not alter its relationship with West Tilbury and the Church of St James nor or impede long-distance views across the former Tilbury Marshes. The visual disturbance to the semi-rural setting of the asset would result in a minor impact. This is assessed to be slight adverse rather than moderate as the construction activity would not greatly alter the relationship between LB50 and LB87 (Barn to north of West Tilbury Hall) and associated listed	None	Minor	Temporary Slight Adverse	The operational alignment (at Tilbury Viaduct) would be located c. 990m east of the asset. Parts of the operational alignment further to the south-east could potentially to be distantly visible from the asset, but this will not harm its value.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						buildings in West Tilbury.								
LB49	Grade II Listed	1111624	WALNUT TREE COTTAGE	High	None	Sited adjacent to the Order Limits, construction activity would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery to the setting. Church Road immediately north of the asset would be used as a Mains Work Construction Access Route (secondary access). The Northern Tunnel Entrance Compound would be located c. 165m south-east of the asset and Low Street Lane Utility Hub would be located c. 120m to the north-east. Utility works for multi-utility networks would take place c. 120m to the south-west and c. 135m south-east of the asset. Construction of the main alignment (Tilbury Viaduct) would take place c. 375m east of the asset. The effect is considered to be moderate rather than large due to the temporary nature of the impact and the fact that the physical fabric of the building will not be harmed.	Good practice	Moderate	Temporary moderate adverse	The main alignment (Tilbury Viaduct) would be located approximately 375m east of the asset and would introduce additional noise and modern infrastructure into its setting. The noise change would be between 3db and 5db (a minor adverse change in noise terms). Lighting columns would be present on Church Road from 150m east of the asset. The curtilage and grounds of the asset would not be affected, nor would its relationship with Church Road, the hamlet of Low Street and settlement of West Tilbury, or the surrounding agricultural landscape in general. As a result the minor impact would result in a slight rather than a moderate adverse effect.	None	Minor	Slight adverse	North
LB52	Grade II Listed	1111630	THATCHED BARN AT WHITFIELDS	High	None	The high value Grade II listed "Whitfields" (LB60) and Grade II listed "Thatched Barn at Whitfields" (LB52) are sited at Baker	Good practice	Moderate	Temporary Moderate Adverse	The high value Grade II listed "Whitfields" (LB60) and Grade II listed "Thatched Barn at Whitfields" (LB52) are sited at Baker Street to the north of Stifford Clays Road. The operational alignment would	None	Minor	Slight adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						Street to the north of Stifford Clays Road. The Stifford Clays Road Compound East would be located c. 170m and c. 110m west of the assets respectively. Construction of the main alignment would take place c. 260m and 210m west of the assets, with construction of the Stifford Clays Road overbridge taking place in slightly closer proximity. Fen Lane to the east of the assets would be used as an online utilities access route and Stifford Clays Road to the south would be used a short-term online main works construction access route. The combination of these construction activities would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery.				be located c. 260m and c. 210m west of the assets respectively. While this would be visible to the north-west of the assets, their relationship with the agricultural land to the north would remain, as would their key relationships with one another and the other buildings forming the courtyard farmstead, and with the settlement of Baker Street. The effect is assessed as slight rather than moderate due to the preservation of these key relationships.				
LB53	Grade II Listed	1111631	THE WILDERNESS	High	None	The Wilderness is sited adjacent to the Order Limits on the eastern side of Fen Lane within the settlement of Baker Street. Groundworks would take place along Fen Lane for multi-utility network diversions. The Stifford Clays Road Compound East would be located c. 215m north-west of the asset and the main alignment	Good practice	Minor	Temporary Slight Adverse	The asset is located within Baker Street and this aspect of its setting and its spatial relationship with other nearby historic buildings would not be harmed. While parts of the main alignment could be distantly visible across farmland to the north-west, this is not assessed to impact upon the value of the asset.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						would be constructed c. 300m west of the asset. Construction of the main Project would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery. The effect is assessed as slight rather than moderate due to the temporary nature of the impact and the fact that the bulk of construction activity will take place at a remove from the asset.								
LB56	Grade II Listed	1111642	MILL HOUSE	High	None	The high value Grade II listed "Mill House" (LB56) is sited in Baker Street immediately to the south of Stifford Clays Road and the Order Limits. As such, construction activity would cause temporary changes, due to the A13/A1089/A122 Lower Thames Crossing junction construction and utility diversions for multi-utility networks, to the setting of this asset by introducing additional noise, lighting and visible construction machinery	Good practice	Minor	Temporary Slight adverse	The high-value Grade II listed "Mill House" (LB56) is located in Baker Street immediately to the south of Stifford Clays Road and the Order Limits. The operational alignment and associated earthworks would be located c. 170m to the south-west of the asset, although views in this direction are somewhat restricted by vegetation in the grounds of the asset and it does not have a strong connection with the agricultural land within the Order Limits. Therefore, there would be a limited aural intrusion, although the noise levels around the asset would not be affected.	None	Negligible	Slight adverse	North
LB6	Grade II Listed	1079869	RUSSELL COTTAGE	High	None	The asset is located on the eastern side of the B186 within North Ockendon Conservation Area (CA4) and immediately east of the Order Limits which include the B186. The B186	Good practice	Negligible	Temporary Slight Adverse	The operational Project would not impact upon any elements of the asset's setting that contribute to its value.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						would be used as a short-term online main construction access route and utility diversions for multi-utility networks would also take place within the road. This would introduce additional noise and visible construction activity into the asset's setting.								
LB60	Grade II Listed	1146709	WHITFIELDS	High	None	The high value Grade II listed "Whitfields" (LB60) and Grade II listed "Thatched Barn at Whitfields" (LB52) are sited at Baker Street to the north of Stifford Clays Road. The Stifford Clays Road Compound East would be located c. 170m and c. 110m west of the assets respectively. Construction of the main alignment would take place c. 260m and 210m west of the assets, with construction of the Stifford Clays Road overbridge taking place in slightly closer proximity. Fen Lane to the east of the assets would be used as an online utilities access route and Stifford Clays Road to the south would be used as a short-term online main works construction access route. The combination of these construction activities would cause temporary changes to the setting of this asset by introducing additional noise,	Good practice	Moderate	Temporary Moderate Adverse	The high value Grade II listed "Whitfields" (LB60) and Grade II listed "Thatched Barn at Whitfields" (LB52) are sited at Baker Street to the north of Stifford Clays Road. The operational alignment would be located c. 260m and c. 210m west of the assets respectively. While this would be visible to the north-west of the assets, their relationship with the agricultural land to the north would remain, as would their key relationships with one another and the other buildings forming the courtyard farmstead, and with the settlement of Baker Street. The effect is assessed as slight rather than moderate due to the preservation of these key relationships.	None	Minor	Slight adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						lighting and visible construction machinery.								
LB61	Grade II Listed	1146717	POPLARS FARMHOUSE	High	None	The asset is sited to the south of Green Lane. The Order Limits is located directly adjacent to the asset along Green Lane and also in open land c. 50m to the south. Utility diversion works for multi-utility networks would take place along Green Lane and further utility diversions for gas networks would take place in the land to the south. This construction activity would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery. This would affect its relationship with the arable fields that inform its setting. The effect is assessed as slight rather than moderate as the majority of the surrounding farmland and the asset's associations with the adjacent farm buildings would not be impacted upon.	Good practice	Minor	Temporary Slight Adverse	The Project would be located beyond the setting of the asset.	None	No change	Neutral	North
LB66	Grade II Listed	1147796	BUCKLAND	High	None	Sited adjacent to the Order Limits, construction activity would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery in northern tunnel	Good practice	Moderate	Temporary Moderate adverse	The setting of the asset to the south-west and west would be greatly altered from an open landscape to road infrastructure including a viaduct and junction. This includes the principal view south-west across the Tilbury Marshes (although this has been previously eroded by vegetation within the grounds and industrial/waste activity	None	Minor	Slight adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						entrance compound, Station Road compound and for construction of the main alignment including the Tilbury Viaduct and the large junction to the south. Utility works for multi-utility networks would also take place in close proximity. Overall this will result in a moderate impact. The effect is considered to be moderate rather than large due to the temporary nature of the impact and the lack of physical harm to the asset or its associated grounds.				on the former marshes). The noise levels would also be greater than 10db, a major adverse change in noise terms. This would result in a minor impact to the value of this asset which is assessed to result in a slight rather than moderate adverse impact, given the minor contribution that the agricultural land makes to its overall value.				
LB67	Grade II Listed	1147812	LITTLE WELLHOUSE	High	None	The asset is sited immediately adjacent to the Order Limits, between the A13 and Chadwell St Mary., Construction activity would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery to the east and west. This would result in a minor impact and a temporary slight adverse effect. The effect is assessed as minor rather than moderate as the rural setting of the asset has already been somewhat eroded by the presence of the A13 and encroachment of the Chadwell St Mary suburbs.	Good practice	Minor	Temporary Slight Adverse	The asset would experience a change to its setting as a result due to the establishment of the A13/A1089/A122 junction in farmland c. 440m to the east of the asset.	None	Negligible	Slight adverse	North
LB69	Grade I Listed	1183610	CHURCH OF ST MARY MAGDALENE	High	None	The asset is located within North Ockendon	Good practice	Minor	Temporary Moderate Adverse	The operational alignment and associated earthworks would be located c. 320m to the	None	Minor	Slight adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						Conservation Area (CA4) immediately east of the Order Limits and c. 350m east of the M25. Construction activity for the A122 Lower Thames Crossing/M25 junction, including the construction of the M25 Compound c. 270m to the south and utility working areas immediately to the west would cause temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery. The effect is assessed as moderate rather than slight due to the extensive nature of the construction activity.				west of the asset. While road infrastructure in the form of the M25 is already located within the setting of the asset, this would be brought closer which would impact upon the rural landscape that makes a minor contribution to the aesthetic value of the asset. The Project would not harm the Conservation Area setting of the asset or alter its relationship with the other buildings in the village. For these reasons, the effect is assessed as slight rather than moderate.				
LB7	Grade II Listed	1079870	THE FORGE	High	None	The asset is located on the western side of the B186 within North Ockendon Conservation Area (CA4) and immediately east of the Order Limits which include the B186. The B186 would be used as a short-term online main construction access route and utility diversions for multi-utility networks would also take place within the road. This would introduce additional noise and visible construction activity into the asset's setting.	Good practice	Negligible	Temporary Slight Adverse	The operational Project would not impact upon any elements of the asset's setting that contribute to its value.	None	No change	Neutral	North
LB75	Grade II Listed	1224101	28 AND 30, BATA AVENUE	High	None	The construction activity would be located in the farmland to the west	Good practice	Negligible	Temporary Slight adverse	The Project would not affect the relationship between the asset and East Tilbury which	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						of the asset and would not affect the relationship between the asset and the associated settlement of East Tilbury, which is a crucial aspect of its setting.				is a crucial aspect of its setting.				
LB8	Grade II Listed	1079871	CASTLE COTTAGES	High	None	The asset is located on the western side of the B186 within North Ockendon Conservation Area (CA4) and immediately east of the Order Limits which include the B186. The B186 would be used as a short-term online main construction access route and utility diversions for multi-utility networks would also take place within the road. This would introduce additional noise and visible construction activity into the asset's setting.	Good practice	Negligible	Temporary Slight Adverse	The operational Project would not impact upon any elements of the asset's setting that contribute to its value.	None	No change	Neutral	North
LB90	Grade II* Listed	1337058	MARSHALL'S COTTAGES	High	None	Construction activity would take place within the Great Common Field c. 400m north and north-west of the asset for multi-utility network works and subsequently for the establishment of an NMU route. This would introduce visible construction activity within part of the historic rural setting of the asset that contributes to its value.	Good practice	Minor	Temporary Slight Adverse	The operational alignment would be largely screened from the asset by intervening buildings and trees and is not located on land that makes a contribution to the value of the asset. However, an NMU route would be present along the northern edge of the Great Common Field which represents a very slight erosion of its historic character.	None	Negligible	Slight adverse	North
LB87	Grade II Listed	1308889	BARN TO NORTH OF WEST TILBURY HALL	High	None	A mains work construction secondary access routes would be situated along	None	Minor	Temporary Slight adverse	The operational alignment (at Tilbury Viaduct) would be located c. 990m east of the asset. Parts of the operational alignment further to the south-	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames	
						Coopers Shaw Road and Church Road c. 240m to the east of the asset. Utility works would take place across the open land c. 150m to the south-west of the asset, situated at the bottom of Hall Hill. The Northern Tunnel Entrance Compound would be located c. 760m south-east of the asset. These works would not alter its relationship with West Tilbury and the Church of St James nor or impede long-distance views across the former Tilbury Marshes. The visual disturbance to the semi-rural setting of the asset would result in a minor impact. The effect assessed to be slight adverse rather than moderate as the construction activity would not alter the relationship between LB87 and LB50 (West Tilbury Hall) and associated listed buildings in West Tilbury.					east could potentially to be distantly visible from the asset, but this will not harm its value.				
LB94	Grade II Listed	1337091	HIGH HOUSE	High	None	Sited c. 275m west of the Order Limits and a utilities online access route, construction activity would cause small temporary changes to the setting of this asset by introducing additional noise, lighting and visible construction machinery to the rural setting of the asset, although largely not in close proximity.	None	Negligible	Temporary Slight adverse	The high-value Grade II listed "High House" (LB94) would be located c. 750m south-west of the operational alignment. Given the distance and the relatively flat topography around the asset, the visual intrusion to its setting would not be great. However, the noise levels at the asset would increase by more than 10db, a major adverse impact in noise terms. However, in heritage terms the elements of the assets setting which make the greatest contributions to its value will not be harmed	LE2.2 Scrub Woodland Planting	Minor	Slight adverse	North	

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
										and it should be noted that a quarry is located immediately to the south-east of the asset. The operation of the Project would result in a permanent impact of minor adverse magnitude and a slight adverse effect which is not significant. The effect is assessed as slight rather than moderate due to the limited scale of the impact and the majority of the elements of the asset's setting that contribute to its value would be preserved.				
LB101	Grade II Listed	1341498	CORNER COTTAGE	High	None	The setting of this asset is primarily formed by the surrounding modern residential development and the asset is sited c. 110m to the north of the existing route of the A2/M2. Construction activity is likely to cause temporary minor changes to its setting by introducing additional noise, lighting and potentially partial glimpses of construction machinery along the route of the A2 and for utility works and establishment of an NMU route c. 60m south of the asset, from the rear upper stories of some of the buildings. This would cause a temporary negligible adverse impact to this high value asset, resulting in a slight adverse significance of effect.	None	Negligible	Slight adverse	The setting of this asset is primarily formed by its location on Hever Court Road and nearby historic buildings, situated close to the existing route of the A2/M2. In terms of long-term operational noise, there would be a negligible/no change compared to existing noise levels. The asset is located in a medium brightness urban area and the Project would not have an impact on its value due to lighting. The operational phase would increase the size of the A2 but this would not be discernible from the asset and consequently they would experience an impact of no change and neutral effect.	None	No change	Neutral	South
LB105	Grade II Listed	1346416	PARISH BOUNDARY STONE	Medium	None	Located within the Order Limits, adjacent to the route of a PRoW that would be upgraded	Temporary fencing	Negligible	Slight adverse	The long-term operational noise change would not be discernably different from existing noise levels. The operation of the Project would	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						to an NMU route by the Project. These works would not move or otherwise physically impact the asset and the asset would be protected by fencing. The asset has previously been moved from its original location for the construction of HS1, and consequently its precise location makes little contribution to its value.				have no adverse effects on the value of the asset.				
LB106	Grade II Listed	1350862	CHURCH OF ST MARGARET, IFIELD	High	None	Construction activity is likely to cause small temporary changes to the setting of this asset by introducing additional noise, lighting, and visible construction machinery along the new route of the A2. This would cause a negligible adverse impact to this high value asset, resulting in a slight adverse significance of effect.	None	Negligible	Temporary slight adverse	Establishment of Ancient Woodland Mitigation Planting LE8.2 c. 160m north-east of the asset would not be out of character in this landscape, which 19th century mapping shows once previously contained more woodland and orchard than today. The woodland would be established adjacent to existing trees along Church Road and the majority of the open field around the asset will be retained. The long-term operational noise change would not be discernably different from existing noise levels. The existing A2 in the vicinity of the asset is already lit (see Appendix 7.9 (Application Document 6.2) and Figure 7.18 (Application Document 6.3)) therefore the night-time setting is not likely to be discernably changed. There would be no change and a neutral effect.	None	No change	Neutral	South
LB122	Grade I Listed	1095053	COBHAM HALL (INCLUDING KITCHEN AND STABLE COURT)	High	None	This asset is located within the bounds of RPG1 c. 640m south of the Order Limits. The construction activity would temporarily introduce additional noise, lighting and visible construction	None	Negligible	Temporary Slight adverse	Although the asset's setting is formed by the RPG1, it also already includes the existing A2 dual carriageway, and the operation of the Project would not result in a discernible change within the setting, beyond the establishment of a cycleway c. 640m to the north at the northern edge of	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						machinery to the setting of this asset.				Cobham Park, and the redesign of the existing Halfpence Lane/Thong Lane roundabout in the north-western part of the park. This would not have an impact on the asset. The existing A2 to the north of the asset and the Brewers Road overbridge are already lit (see Figure 7.18, Application Document 6.3) and therefore the night-time setting is not likely to be discernably changed.				
LB126	Grade II Listed	1096336	CRUTCHES GATE COTTAGE AND FARMHOUSE	High	None	The asset is sited c. 180m to the north-east of the existing route of the A2/M2 and c. 65m north of a slip road. Construction activity is likely to cause temporary minor changes to its setting by introducing additional noise, lighting and potentially partial glimpses of construction machinery along the route of the A2 and for utility works and a long-term online main construction access route along the slip road. This would cause a temporary negligible adverse impact to this asset.	None	Negligible	Temporary Slight adverse	The long-term operational noise change would not be discernably different from existing noise levels. The existing A2/M2 in the vicinity are already lit (see Figure 7.18, Application Document 6.3) and therefore the night-time setting is not likely to be discernably changed. Although partly surrounded by residential development the asset derives some value from its setting, primarily from its location on Old Watling Street nearby former farm buildings of Crutches Farm and the surviving open landscape to the north and north-west. Although the land within the Order Limits form part of its setting (as the A2/M2 and roadside planting) it does not contribute to the value of the asset. The operational phase would increase the size of the A2/M2 but this would not adversely impact upon the value of the asset.	None	No change	Neutral	South
LB190	Grade II Listed	1095057	ROSE COTTAGE	High	None	Utilities diversion within the present-day road alignment of Halfpence Lane would create a temporary disruption in the setting of this asset. This would only have a negligible impact on this high value asset	None	Negligible	Slight adverse	The visual and associative setting does not extend to the land within the Order Limits. There will be no change to noise levels in the vicinity of the asset. While distant lighting will increase due to the widening of the A2 corridor, this will be in an area which is already lit (see Appendix 7.9 (Application Document 6.2) and Figure	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						resulting in a slight adverse effect.				7.18 (Application Document 6.3)) and the change would not be of a scale which would harm the value of the asset.				
LB22	Grade II Listed	1083901	WHITE HORSE COTTAGE	High	None	The asset is located approximately 150m east of the Order Limits and 65m west of the Order Limits, which surround Thong Conservation Area. Construction activity for the main alignment to the west of the asset, including major earthworks and structures, would temporarily introduce additional noise, lighting and visible construction machinery to the setting of this asset, and this would have a moderate magnitude temporary impact.	Good practice	Moderate	Temporary moderate adverse	The operation of the Project would change the setting of the high-value Grade II listed White Horse Cottage (LB22), with the main alignment visible in the formerly open agricultural land to the west. While there would be no change to existing noise levels, the low brightness night-time setting of the asset (see baseline assessment for CA10) would see increased light as a result of the Project which would slightly harm its rural character.	None	Moderate	Moderate adverse	South
LB230	Grade II Listed	1435143	Cobham War Memorial	High	None	Utilities diversion within the present-day road alignment of Halfpence Lane would create a temporary disruption in the setting of this asset. This would only have a negligible impact on this high value asset resulting in a slight adverse effect.	None	Negligible	Temporary Slight adverse	No change	None	No change	Neutral	South
LB241	Grade I Listed	1049037	GADSHILL PLACE	High	None	The asset is sited adjacent to the A226 (Gravesend Road) which would be used as a long-term main online construction access route. The additional construction traffic would negatively impact upon the asset as a result of the additional noise and vehicle	None	Minor	Temporary Slight adverse	No change	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						movements. This would have a minor impact on this high value asset resulting in a temporary slight adverse effect.								
LB25	Grade II Listed	1089020	FILBOROUGH FARMHOUSE	High	None	This asset is sited c. 975m to the north of the South Portal and c. 90m east of A226 Gravesend Road compound. The high value Grade II listed Filborough Farmhouse (LB25), and the Grade II listed Granary at Little Filborough Farm (LB30) and the Barn to North West of Filborough Farmhouse (LB99) are predicted to experience a temporary change to their setting (Application Document 6.2, Figure 6.6, Viewpoint S-(CH)06). The works for the ground preparation tunnel would include tall construction machinery that would be visible from these assets and intrusive in the otherwise gently undulating surrounding landscape, an area with which they have a historical connection as adjacent farmland. Due to the presence of tall construction machinery the good practice mitigation measure to screen construction compounds would not be effective in this location. This would result in a moderate magnitude	Good practice	Moderate	Temporary moderate adverse	This asset is located c. 975m to the north of the South Portal. While the new landform at Chalk Park would be visible, this would not harm the value of the asset. There would be no change to noise levels around the asset and the lighting change to the night-time environment is not likely to be discernable.	None	None	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						temporary impact and a moderate adverse effect, which is assessed as significant. This is assessed to be moderate adverse, rather than large, due to the temporary nature of the construction activities and because the relationship between the three buildings, which is a key component of their setting that contributes to their value, would not be affected.								
LB263	Grade II Listed	1096327	SIR JOHN FALSTAFF PUBLIC HOUSE	High	None	The asset is sited adjacent to the A226 (Gravesend Road) which would be used as a long-term main online construction access route. The additional construction traffic would negatively impact upon the asset as a result of the additional noise and vehicle movements. This would have a minor impact on this high value asset resulting in a temporary slight adverse effect.	None	Minor	Temporary slight adverse	No change	None	No change	Neutral	South
LB27	Grade II* Listed	1089044	CHURCH OF ST MARY	High	None	Current peaceful rural surroundings that contribute to their value would be affected by an increase in noise but there would be little change to their visual surroundings both because of the distance to the construction activity and because their settings are largely enclosed by vegetation. In	None	Minor	Temporary Slight adverse	This asset is located over 500m to the north-east of the South Portal. The main alignment is unlikely to be visible, although the new landform in Chalk Park will be visible. The Project would not result in a discernable increase in traffic noise. At night, the increased lighting would not be directly visible but may increase the background lighting perceptible in the area (against the backdrop of existing light spill from	None	Minor	Slight adverse	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						addition, the A226 would remain operational and therefore the Church of St Mary (LB27) would not be functionally separated from the community it serves to the west of the Order Limits. This would result in a minor impact to these high value assets and a slight adverse effect. This is assessed as slight, rather than moderate, adverse as the change to setting would cause only a small temporary change to the appreciation of the value of the assets.				Gravesend). Overall, this would be a slight change to the value of the asset, which would have a minor impact resulting in a slight adverse effect.				
LB28	Grade II Listed	1089045	EAST COURT FARMHOUSE	High	None	A226 Gravesend Road compound would be located c. 280m to the north-west. Current peaceful rural surroundings that contribute to their value would be affected by an increase in noise but there would be little change to their visual surroundings both because of the distance to the construction activity and because their settings are largely enclosed by vegetation and a slight topographical rise to the west. This would result in a minor magnitude temporary impact and a slight adverse effect, which is assessed as not significant. This is	None	Minor	Temporary slight adverse	This asset is located c. 875m to the north of the South Portal. While the new landform at Chalk Park would be visible, this would not harm the value of the asset. There would be no change to noise levels around the asset and the lighting change to the night-time environment is not likely to be discernable.	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						assessed as slight, rather than moderate, adverse as the change to setting would cause only a small temporary change to the appreciation of the value of the asset.								
LB29	Grade II Listed	1089051	THE GEORGE INN	High	None	The setting of this asset is primarily formed by the surrounding modern residential development and the asset is sited c. 110m to the north of the existing route of the A2/M2. Construction activity is likely to cause temporary minor changes to its setting by introducing additional noise, lighting and potentially partial glimpses of construction machinery along the route of the A2 and for utility works and establishment of an NMU route c. 60m south of the asset, from the rear upper stories of some of the buildings. This would cause a temporary negligible adverse impact to this high value asset, resulting in a slight adverse significance of effect.	None	Negligible	Temporary slight adverse	The setting of this asset is primarily formed by its location on Hever Court Road and nearby historic buildings, situated close to the existing route of the A2/M2. In terms of long-term operational noise, there would be a negligible/no change compared to existing noise levels. The asset is located in a medium brightness urban area and the Project would not have an impact on its value due to lighting. The operational phase would increase the size of the A2 but this would not be discernible from the asset and consequently they would experience an impact of no change and neutral effect.	None	No change	Neutral	South
LB3	Grade II Listed	1054798	CHAPEL FARMHOUSE	High	None	The setting of this asset is primarily formed by the surrounding modern residential development and the asset is sited c. 110m to the north of the existing route of the A2/M2. Construction activity	None	Negligible	Temporary Slight adverse	The setting of this asset is primarily formed by its location on Hever Court Road and nearby historic buildings, situated close to the existing route of the A2/M2. In terms of long-term operational noise, there would be a negligible/no change compared to existing noise levels. The asset is located in a medium	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						is likely to cause temporary minor changes to its setting by introducing additional noise, lighting and potentially partial glimpses of construction machinery along the route of the A2 and for utility works and establishment of an NMU route c. 60m south of the asset, from the rear upper stories of some of the buildings. This would cause a temporary negligible adverse impact to this high value asset, resulting in a slight adverse significance of effect.				brightness urban area and the Project would not have an impact on its value due to lighting. The operational phase would increase the size of the A2 but this would not be discernible from the asset and consequently they would experience an impact of no change and neutral effect.				
LB30	Grade II Listed	1089062	GRANARY AT LITTLE FILBOROUGH FARM	High	None	This asset is sited c.1km to the north of the South Portal, and c. 80m east of A226 Gravesend Road compound. The high value Grade II* listed Filborough Farmhouse (LB25), and the Grade II listed Granary at Little Filborough Farm (LB30) and the Barn to North West of Filborough Farmhouse (LB99) are predicted to experience a temporary change to their setting (Application Document 6.2, Figure 6.6, Viewpoint S-(CH)06). The works for the ground preparation tunnel would include tall construction machinery that would be visible from these assets and intrusive in the otherwise	Good practice	Moderate	Temporary moderate adverse	This asset is located c. 1km to the north of the South Portal. While the new landform at Chalk Park would be visible, this would not harm the value of the asset. There would be no change to noise levels around the asset and the lighting change to the night-time environment is not likely to be discernable.	None	None	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						gently undulating surrounding landscape, an area with which they have a historical connection as adjacent farmland. Due to the presence of tall construction machinery the good practice mitigation measure to screen construction compounds would not be effective in this location. This would result in a moderate magnitude temporary impact and a moderate adverse effect, which is assessed as significant. This is assessed to be moderate adverse, rather than large, due to the temporary nature of the construction activities and because the relationship between the three buildings, which is a key component of their setting that contributes to their value, would not be affected.								
LB31	Grade II Listed	1096324	THE MOUNT	High	None	This asset is located within the bounds of RPG1 c. 115m south of the Order Limits and is separated from it by woodland. The construction activity would temporarily introduce additional noise, lighting and visible construction machinery to the setting of this asset, but this would only have a negligible impact on this high value asset resulting	None	Negligible	Temporary Slight adverse	The long-term operational noise change would not be discernably different from existing noise levels. The existing A2 in the vicinity and the Brewers Road overbridge are already lit (see Figure 7.18, Application Document 6.3) although the Thong Lane Green Bridge would create a new light source. However, given the existing setting of the asset c. 300m south of the A2, the minor change to night-time setting is not assessed to cause harm to the value of the asset.	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						in a slight adverse effect.				Although the asset's setting is formed by RPG1, it also already includes the existing A2 dual carriageway, and the operation of the Project would not result in a discernible change within the setting, beyond the establishment of a cycleway on the PRoW c. 125m north of the asset at the northern edge of Cobham Park and the redesign of the existing Halfpence Lane/Thong Lane roundabout in the north-western part of the park. This would not have an impact on LB31, and so the Project would therefore have a neutral effect.				
LB4	Grade II Listed	1054827	ORCHARD HOUSE	High	None	The setting of this asset is primarily formed by the surrounding modern residential development and the asset is sited c. 110m to the north of the existing route of the A2/M2. Construction activity is likely to cause temporary minor changes to its setting by introducing additional noise, lighting and potentially partial glimpses of construction machinery along the route of the A2 and for utility works and establishment of an NMU route c. 60m south of the asset, from the rear upper stories of some of the buildings. This would cause a temporary negligible adverse impact to this high value asset, resulting in a slight adverse significance of effect.	None	Negligible	Temporary slight adverse	The setting of this asset is primarily formed by its location on Hever Court Road and nearby historic buildings, situated close to the existing route of the A2/M2. In terms of long-term operational noise, there would be a negligible/no change compared to existing noise levels. The asset is located in a medium brightness urban area and the Project would not have an impact on its value due to lighting. The operational phase would increase the size of the A2 but this would not be discernible from the asset and consequently they would experience an impact of no change and neutral effect.	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
LB78	Grade II Listed	1252853	BAYNARDS COTTAGE	High	None	LB78 is predicted to experience a temporary change to its setting. During construction, Utility Logistics Hub ULH13 would be established around 100m to the west and Ancient Woodland Mitigation Planting LE8.2 would subsequently take place to the west, south and east of the asset. This would result in a moderate magnitude temporary impact and a moderate adverse effect, which is assessed as significant.	Good practice.	Moderate	Temporary moderate adverse	The operation of the Project would not result in a change in noise levels in the vicinity of the asset. There may be a slight increase in lighting of the night-time environment due to the presence of lights along the main alignment leading to the South Portal. However, the lights would be located in a cutting c. 1km north-west of the asset and the light would be in the context of existing light spill from Gravesend. Ancient Woodland Mitigation Planting (LE8.2) would be established in the field immediately to the east and south of the asset, which is currently in use as arable farmland. This would effectively extend Shorne Woods northward adjacent to the asset. There would be an area of open grassland established as a buffer between the woodland planting and the property boundary of the asset. The connection of the asset with the arable landscape would remain to the north, visible from the principal elevation. However, the open arable land to the south would be replaced by woodland. This erosion of the open agricultural landscape would result in a minor magnitude impact.	Establishment of grassland buffer between the asset and the woodland planting.	Minor	Slight adverse	South
LB79	Grade II Listed	1262054	THE ENGINE HOUSE, COBHAM HALL	High	None	This asset is located within the bounds of RPG1 c. 130m south of the Order Limits and is separated from it by intervening vegetation. The construction activity would temporarily introduce additional noise, lighting and visible construction machinery to the setting of this asset.	None	Negligible	Temporary Slight adverse	Although the asset's setting is formed by RPG1, it also already includes the existing A2 dual carriageway, and the operation of the Project would not result in a discernible change within the setting, beyond the establishment of a cycleway c. 130m north at the northern edge of Cobham Park and the redesign of the existing Halfpence Lane/ Thong Lane roundabout in the north-western part of the park. The long-term operational noise change would not be	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
										discernably different from existing noise levels. The existing A2 in the vicinity and the Brewers Road overbridge are already lit (see Figure 7.18, Application Document 6.3) and therefore the night-time setting is not likely to be discernably changed. The Project would not have an impact on this asset.				
LB99	Grade II Listed	1341481	BARN TO NORTH WEST OF FILBOROUGH FARMHOUSE	High	None	This asset is sited c. 975m to the north of the South Portal and c. 60m east of A226 Gravesend Road compound. The high value Grade II* listed Filborough Farmhouse (LB25), and the Grade II listed Granary at Little Filborough Farm (LB30) and the Barn to North West of Filborough Farmhouse (LB99) are predicted to experience a temporary change to their setting (Application Document 6.2, Figure 6.6, Viewpoint S-(CH)06). The works for the ground preparation tunnel would include tall construction machinery that would be visible from these assets and intrusive in the otherwise gently undulating surrounding landscape, an area with which they have a historical connection as adjacent farmland. Due to the presence of tall construction machinery, the good practice mitigation measure to screen construction	Good practice	Moderate	Temporary moderate adverse	This asset is located c. 975m to the north of the South Portal. While the new landform at Chalk Park would be visible, this would not harm the value of the asset. There would be no change to noise levels around the asset and the lighting change to the night-time environment is not likely to be discernable.	None	None	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						compounds would not be effective in this location. This would result in a moderate magnitude temporary impact and a moderate adverse effect, which is assessed as significant. This is assessed to be moderate adverse, rather than large, due to the temporary nature of the construction activities and because the relationship between the three buildings, which is a key component of their setting that contributes to their value, would not be affected.								
LB334	Grade II Listed	1070552	Hale Close	High	None	Hale Close is located within a discrete plot of land, slightly set back from the southern edge of Pilgrims Way. Its setting is influenced by its defined plot of land (relics of which survive from the illustrated 1869 OS map) and the rural character to the south of the building. The setting contributes in part to the significance of the building. Impacts to the asset will principally come from construction traffic along Pilgrims Way increasing noise. Mitigation would be in the form of good practice for construction.	Good practice	Minor	Temporary slight adverse	The asset is located 500m southeast of the Order Limits at the western Blue Bell Hill Site. Intervening properties on the northern side of Pilgrims Way and woodland prevent any visibility between the Order Limits and the asset; consequently the Order Limits do not contribute to the significance of the asset.	None	No change	Neutral	South
LB335	Grade II Listed	1070553	Little Culand, Farmhouse	High	None	Little Culand Farmhouse is located on the southern edge of Pilgrims Way,	Good practice	Minor	Temporary slight adverse	The asset does not hold any visibility to the Order Limits. This is due to the topography of Pilgrim's Way with the	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames	
						190m south of the Order Limits. The setting of the farmhouse is principally informed by its location within the farmyard of Little Culand Farmstead (4744) and the buildings forming the farmstead. However, the original layout and character of the farmstead has changed since the 1960s, with the original farm buildings (such as the timber barn of asset 4640) being replaced by large sheet metal sheds. Consequently, the setting plays a limited part to the significance of the asset. Impact to setting during construction would occur from an increase in noise along Pilgrim Way from construction traffic.					farmhouse located on a downslope; as well as surrounding vegetation creating an enclosed plot of land for the farmhouse.				
CA4	Conservation Area		North Ockendon	High	Multi-utility network works would take place along the B186 within the Conservation Area which would introduce noise and construction traffic which would have a small but temporary impact on its aesthetic value.	The high-value designated North Ockendon Conservation Area (CA4), is partially located within the Order Limits, approximately 250m east of the M25. During the construction phase, the M25 compound would be established immediately to the south and south-west of the asset. A short-term online main construction route would be established through the Conservation Area, along Ockendon	Screening of construction compounds, Good Practice, Reinstatement of Agricultural Land	Moderate	Temporary Moderate Adverse	North Ockendon (CA4) Conservation Area, which is of high value, is located approximately 250m east of the M25. The rural landscape surrounding the asset (albeit compromised to the west by the M25) makes a minor contribution to its overall value through its aesthetic and illustrative historical value as a rural settlement (Application Document 6.2, Figure 6.6, Viewpoint N-38). Operation of the Project would result in the presence of a new road c. 250m south-west of the asset, passing under the M25, and curving eastward through the currently rural landscape approximately 600m south of the asset. This would be	False cutting earthworks	Moderate	Moderate adverse	North	

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						Road and the B186. Multi-utility network works would also take place areas along the B186. Construction of the main alignment and associated earthworks would take place c. 270m west of the asset. These activities would be mitigated through the good practice mitigation of appropriate screening of construction compounds and measures to reduce dust, noise and light (S326) and reinstatement of the agricultural land used for the construction compounds. Overall, with the implementation of mitigation this would result in a temporary impact of moderate adverse magnitude.				mitigated by false cutting earthwork embankments along the main alignment to the south-east and south of Ockendon. The false cutting earthworks and overbridges would be visible in southward views out of the Conservation Area, from the PRoW in the western hamlet and the B186 in the eastern hamlet. However, key Internal views identified in the Conservation Area Character Appraisal (London Borough of Havering, 2008c) would not be altered. Overall, the Project would result in a permanent impact of moderate adverse magnitude and a moderate adverse effect, which is significant				
CA6	Conservation Area		East Tilbury	High	None	The high value designated East Tilbury Conservation Area (CA6), is located approximately 30m east of the Order Limits and main works area and approximately 510m east of the proposed location of the main alignment and associated earthwork embankments. The Tilbury Viaduct would be constructed approximately 550m to the south-west of the asset, and the Northern Tunnel Entrance Compound would be established approximately 135m	Screening of construction compounds, Good Practice	Moderate	Temporary moderate adverse, permanent slight adverse	East Tilbury (CA6) Conservation Area, which is of high value, is located approximately 510m east of the main alignment and associated earthwork embankments. The Tilbury Viaduct would be located approximately 550m to the south-west of the asset. As a settlement built as a 'garden village', the surviving rural landscape to the west, south and south-east of the Conservation Area makes a minor contribution to its value, through its aesthetic and illustrative historical value. However, it should be noted that a 299-unit housing development has recently been constructed on the western side of the asset, further reducing its	False cutting earthworks on the northern side of the Tilbury Viaduct	Moderate	Moderate adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames	
						to the south of the asset. The Muckingford Road Utility Hub would be established c. 400m west of the Conservation Area. Multi-utility network works would take place within the agricultural land between East Tilbury and the main alignment. These construction activities would cause visual and auditory disturbance to the rural setting to the south-west of the Conservation Area, which makes a minimal contribution to its value. However, the works would be large in scale and intrusive in nature. These temporary construction activities would be mitigated through screening of construction compounds with fencing and good practice measures to reduce the impact of dust, noise and lighting. Following the implementation of mitigation, construction of the Project is assessed to result in a temporary impact of moderate adverse magnitude and a moderate adverse effect, which is assessed as significant.					connections with the agricultural landscape (planning reference 09/50045/TTGOUT). A 50-home development has also been constructed at Bata Mews immediately south of the Conservation Area (13/01163/FUL). The majority of the Conservation Area's value is derived from the evidential, historical and aesthetic value of its built form, features and open spaces, and from its associative historical value with Thomas Bata and its sister settlement in Zlín, in the Czech Republic, where the Bata company originated. The Project would result in the visible presence of tall infrastructure (Tilbury Viaduct) and earthworks through the agricultural landscape to the south-west of the Conservation Area, further eroding the rural setting in combination with the recently constructed developments mentioned above. While this would reduce the agricultural landscape in this direction, it would not be completely severed and several rural fields would remain adjacent to the south-western side of the asset. Noise levels would increase in the south-western part of the Conservation Area, although it should be noted that this area is historically industrial in character. Overall, the operation of the Project would result in a permanent impact of minor adverse magnitude and a slight adverse effect, which is not significant				
CA7	Conservation Area		West Tilbury	High	Construction of the Project would result in a permanent physical impact to the high-	A number of temporary construction activities would affect the asset, comprising the following:	Screening of construction compounds, Good Practice, archaeological excavation and	Minor (permanent), Moderate (temporary)	Permanent Slight Adverse and Temporary Moderate Adverse	The asset's south-eastern extent would be approximately 195m to the west of the operational main alignment and Tilbury Viaduct. The Muckingford Road bridge over	None	Moderate	Moderate adverse	North	

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
					value West Tilbury Conservation Area (CA7). Construction of a utility access route and following that in the same location, an NMU route, would result in the removal of the 'gappy' hedgerow and bank that forms the northern boundary of the Great Common Field and of the Conservation Area itself. This would result in a minor impact and a slight, rather than moderate, effect due to the small scale of change to the overall value of the Conservation Area and due to mitigation.	a. Creation of a utility access route and associated utility working area across the northern edge of the Great Common field within the asset b. A utility access route across open land immediately south of the Conservation Area c. Establishment of the Northern Tunnel Entrance Compound immediately to the south-east of the asset d. Construction of the main alignment approximately 185m to the east of the asset e. Utility access route across the fields immediately to the south of the asset between Gun Hill and Coopers Shaw Road f. Mains works construction access route (secondary access) along Coopers Shaw Road and Church Road immediately east of the asset.	recording (REAC Ref. CH001; AMS-OWSI No. 4)			the A122 and earthworks would be located approximately 560m to the east of the northern part of the asset (Application Document 6.2, Figure 6.6, Viewpoints N-08, N-09 and N-11). These would greatly change the character of the agricultural land to the east of the asset, with the introduction of raised road infrastructure which would alter the views and the skyline and reduce the rural landscape between West and East Tilbury. Key views southward over the former marshes to the historically associated common land would remain, as would views to the west and north. Key views towards West Tilbury and the tower of the Church of St James from the landscape to the south-west would also be preserved. The introduction of the landscape earthworks to the south of the North Portal would not prevent views across the river to Kent. Several areas within CA7 would see a noticeable increase in noise levels due to the operational Project, largely in open land away from existing roads. The eastern part of the Great Common Field, around the Grade II* listed "Marshall's Cottages" (LB90) would see an increase of 5db to 10db (a moderate adverse change in noise terms). The southern part of the Conservation Area, to the south of the Grade II* listed "Church of St James" (LB33) would see a similar increase. Much of the eastern part of the Conservation Area at Low Street would also see a 5db to 10db increase (in the rural land away from the existing Church Road). These noise changes would noticeably reduce the rural character of the Conservation Area.				

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
CA9	Conservation Area		Shorne Village	High	None	The high value designated Shorne Conservation Area (CA9) is located approximately 500m south-east of the Order Limits and is predicted to experience a temporary change to its setting. During the construction phase, the Southern Tunnel Entrance compound, utility diversion works, and the construction of the main alignment would occupy much of the middle ground of one key external view identified in the Conservation Area Appraisal (Gravesham Borough Council, 2017d). Given the high elevation of the vantage point (Application Document 6.2, Figure 6.6, Viewpoint, S-32) it would not be possible to mitigate this impact. This would result in a temporary impact of minor adverse magnitude and a slight adverse effect, which is assessed as not significant	None	Minor adverse	Temporary Slight adverse	CA9 Conservation Area derives its value primarily from the historical, evidential and aesthetic value of its built form and historic open spaces, although it also derives some value from its setting, including a number of key internal and external views. One such key external view (identified in the Conservation Area Appraisal (Gravesham Borough Council, 2017d)) overlooks the area within the Order Limits (Application Document 6.2, Figure 6.6, Viewpoint S-32), and is from a PRoW immediately west of the Conservation Area boundary, although similar views (somewhat filtered by seasonal vegetation) are likely to be possible with the adjacent parts of the Conservation Area. This wide-ranging panoramic view encompasses a foreground of the arable chalk landscape (small arable fields, followed by the open prairie fields and golf course within the Order Limits), a middle ground of reclaimed marshland and the River Thames, to distant views of Essex beyond. The view contains a wide-ranging mix of agricultural, industrial, infrastructure and residential elements. The foreground is predominantly agricultural, apart from prominent electricity pylons and the Thames View Crematorium (immediately to the north of the Order Limits). In itself, this view makes a minor contribution to the overall value of the Conservation Area, through its aesthetic value. Woodland will be established in the NDEP areas c. 210m to the south-east and 220m to the south of Shorne Conservation Area. As the	None	Minor	Slight adverse	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
										<p>setting of the Conservation Area in these directions is enclosed and already contains a large amount of woodland, this is not assessed to result in harm to the value of the asset.</p> <p>During the operational phase the main alignment and South Portal area would be visible within the middle ground of this view. Large areas of the land inside the Order Limits within the view would be returned to landowners, and other areas would see a change in use from arable to areas of new contoured earthworks with woodland edge planting (Figure 2.4: Environmental Masterplan (Application Document 6.2) LE2.2), woodland with non-native species (EMP element LE2.11) and species-rich grassland (Figure 2.4: Environmental Masterplan (Application Document 6.2) LE1.3). Given the high elevation of the vantage point, it will not be possible to mitigate these changes to the key view. However, while the Project would introduce new elements within the middle ground, it should be noted that this would be in the context of a wide-ranging panoramic view which already contains a mix of rural, industrial, infrastructure and residential elements. The changes to this key view would result in a minor magnitude permanent impact.</p>				
CA10	Conservation Area		Thong Conservation Area	Medium	CA10 would experience a limited physical impact, comprising the widening of Thong Lane at the northern edge of the area and slight	Thong Conservation Area (CA10) is predicted to experience a temporary change to its setting from construction of the main alignment and associated earthworks and	Screening of construction compounds	Temporary Moderate, Permanent minor	Temporary moderate adverse, permanent slight adverse	The northernmost part of the medium-value designated Thong (CA10) Conservation Area extends within the Order Limits. Utility diversions to the west of Thong would require the movement of an existing electricity pylon closer to the edge of Thong Conservation Area, placing it approximately	Earthworks and woodland planting to screen part of A122 route	Moderate adverse	Moderate adverse	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
					encroachment within the gardens of Homes for Heroes buildings on the western side of the road. This would result in a permanent minor magnitude impact to the asset.	landscaping, the A2 compound and the southern tunnel entrance compound. This would temporarily introduce additional noise, lighting and visible construction activity and machinery to the asset's settings (Application Document 6.2, Figure 6.6, Viewpoint S-25). This would be mitigated by screening of construction compounds with hoarding (S325.08), and good practice construction procedures to reduce the impact of noise, dust and lighting. This would result in a temporary impact of moderate adverse magnitude and a moderate adverse effect on the medium value Thong Conservation Area (CA10) which is assessed as significant				75m west of the Conservation Area, as opposed to the current distance of approximately 200m. This would add to the change to the setting of the Conservation Area, introducing additional infrastructure in close proximity that would increase the enclosure of the current open setting, and consequently affect its value. In addition, the existing key northern approach to the Conservation Area (identified in the Conservation Area Appraisal (Gravesham Borough Council, 2017e)) on the historic route of Thong Lane would be altered with new woodland planting screening along a new curving road alignment. This would alter the historic approach to the Conservation Area and screen the existing key views towards the asset on the approach from the north. No mitigation has been identified that could reduce these impacts to the Conservation Area. The alteration of the northern approach into the Conservation Area and the large changes to elements of its setting that contribute to its value would affect the value of the Conservation Area. During the operational phase, the main alignment would be located approximately 50m to the west of Thong (CA10) Conservation Area, passing to the west of the asset to meet the rising earthworks of the M2/A2/Lower Thames Crossing junction approximately 125m south-west of the asset. The landscape earthworks to screen the M2/A2/Lower Thames Crossing junction would raise the ground level significantly to the south-west, and the M2/A2/Lower Thames				

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
										<p>Crossing junction would include flyover bridges. The character of the open agricultural land to the north-west, west and south-west of the asset would be changed to infrastructure and landscaping, and key external views towards the asset across the agricultural land to the west would be adversely altered.</p> <p>The landscape to the west of the asset does not form as prominent a background in views out of the Conservation Area as does Randall Wood to the east. However, glimpsed views westward from along Thong Lane within the Conservation Area would be slightly altered. The view out of Thong (CA10) Conservation Area from the PRoW heading west from Thong Lane would be far more noticeably altered when viewed from the western edge of the Conservation Area. The key view looking south to the asset when approached from the north along Thong Lane would also be altered, with the realignment of the historic route of Thong Lane, and woodland planting which would screen views to the Conservation Area.</p> <p>While views looking east from Thong (CA10) Conservation Area to Randall Wood would not be altered, the external views westward towards the asset from the edge of the wood itself would be altered, with the Project visible in the background. Therefore, all of the key long-distance views of the Conservation Area identified within the Conservation Area Appraisal (Gravesham Borough Council, 2017e) would be adversely altered. Apart from the views</p>				

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										<p>from the north, key internal views within the Conservation Area would not be altered. However, a key characteristic of the Conservation Area, appearing 'islanded' within a rural landscape, would be compromised by the shrinking of the 'island' within which it sits.</p> <p>The long-term operational noise change from the existing baseline would not be discernable from most parts of the Conservation Area (Figure 12.8, Application Document 6.2). In the western part of the Conservation Area, west of Thong Lane and in most cases to the rear of the properties along the lane, the operational noise would be 5 to 9.9dBA higher than the present which Chapter 12 assesses as a moderate adverse change. The introduction of additional traffic noise which was not previously present in the rural setting would cause a degree of harm to its aesthetic value.</p> <p>Regarding Lighting, according to Chapter 6 Appendix 7.9 (Application Document 6.2) states "there would be a perceived change in the night-time environment due to new sources of lighting (LED luminaires) and vehicle lights at the M2/A2/Lower Thames Crossing junction, in particular on the elevated Project road southbound to A2 westbound viaduct structure. Additional light sources would also be present along Thong Lane and on the Thong Lane green bridge south. The street lighting along the A2 corridor would change to LED luminaires. Installed on lower columns, emitting reduced light spill and skyglow compared with the existing</p>				

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
										<p>luminaires, the prominence of the new lighting would be limited and perceived in the context of existing lighting. However, due to the widened corridor, the extent of lighting would be increased, with additional lanes of traffic and vehicle lights evident. The perception of lighting would be greatest further north in the LLCA away from existing lighting along the A2 corridor”, i.e. in the vicinity of Thong Conservation Area.</p> <p>The impacts to the Conservation Area would be mitigated by the Thong Lane green bridge to reduce visibility of the main alignment, a wooded circle around Thong helping to retain part of the rural setting (Design Principle S2.01), native woodland planting on the slopes of the M2/A2/Lower Thames Crossing junction earthworks to the south-west to screen the infrastructure of the junction (Figure 2.4: Environmental Masterplan (Application Document 6.2) LE2.1, 2.2, 2.3, 2.4) and establishment of new woodland planting at the M2/A2/Lower Thames Crossing junction to help reduce the effects of new lighting on the night-time environment.</p> <p>Overall, these impacts to its views and setting would adversely affect the Conservation Area, although it would still be understandable as a linear village with no further change (after construction) to the relationships between the buildings and it would maintain its relationship with Thong Lane and the land to the west. Therefore, this</p>				

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										would result in a moderate magnitude permanent impact to this medium-value asset and a moderate adverse effect, which is assessed as significant.				
CA11	Conservation Area		Cobham Village	High	The Order Limits extends partially within the asset along Halfpence Lane. The asset is predicted to experience a temporary change to its rural character from proposed utilities works along Halfpence Lane.	The high value designated Cobham Conservation Area (CA11) is located partially within the Order Limits and is predicted to experience a temporary change to its rural character from proposed utilities works along Halfpence Lane within and adjacent to the Cobham Conservation Area (CA11). This would result in a temporary impact of minor adverse magnitude and a slight adverse effect, which is assessed as not significant	None	Minor adverse	Temporary Slight adverse	Cobham (CA11) Conservation Area is located partially within the Order Limits, at an area proposed for utilities works along Halfpence Lane, which will have been completed prior to the Operational Phase. The main alignment and associated landscaping would be located approximately 925m north of the asset. Halfpence Lane, included within the Order Limits, makes a minor contribution to the setting and character and appearance of the asset, as it forms a historic routeway and an approach to the village from the A2. The main alignment area within the Order Limits does not contribute to the value of the asset and is largely screened by intervening woodland and undulating topography. From the very north-eastern corner of the Conservation Area within Cobham Hall (RPG1), distant glimpses of the main area within the Order Limits are possible in the vicinity of Brewers Road but in themselves do not contribute to the value of the asset. The long-term operational noise change would not be discernably different from existing noise levels. During operation, the remainder of the area within the Order Limits would be largely screened from the asset by vegetation. However, there is potential for distant glimpsed views of the tallest elements of the M2/A2/Lower Thames Crossing junction (approximately 1.1km to the north-west) from the upper stories of buildings within the	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
										Conservation Area during the winter months (Application Document 6.2, Figure 6.6, Viewpoint S-(CH)07). Such distant glimpsed views would not affect the value of the Conservation Area. While night-time lighting will increase due to the widening of the A2 corridor, this will be in an area which is already lit (see Appendix 7.9 (Application Document 6.2) and Figure 7.18 (Application Document 6.3)), therefore the change is unlikely to be of a scale which would harm the value of the asset.				
CA14	Conservation Area		Riverside, Gravesend	High	None	The high-value Gravesend Riverside Conservation Area (CA14) would experience an impact from the use of Canal Road within the asset as a short-term online main works construction access route linking the Milton Compound with the Southern Tunnel Entrance Compound. The increase in traffic (within this already urban area) would result in a temporary impact of minor adverse magnitude and a slight adverse effect, which is not significant	None	Minor adverse	Temporary Slight adverse	No change	None	No change	Neutral	South
RPG1	Grade II* Registered Park and Garden	1000182	Cobham Hall	High	During the construction phase, a cycleway would be constructed along the northern edge of RPG1 parallel to HS1 and the park boundary (partially along an existing PRoW)	Long-term online main construction routes would be present along the A2 and M3. Construction activity would take place along the A2 and the Brewers Road overbridge would be replaced. The visual impact of construction activity along the A2 would be mitigated by the	The impact of construction activity adjacent to Brewers Road would be mitigated by the use of hoarding of a sensitive appearance, such as plain and dark green (REAC Ref CH001; AMS-OWSI No. 1).	Minor	Permanent Slight adverse	RPG1 would be impacted by the presence of the widened A2 and realigned Thong Lane and Brewers Road bridges over the A2, which border the northern edge of the park. The reduction in vegetation along the northern edge of the park with the loss of trees from the centre of the A2 corridor, and the increase in the size of the existing infrastructure corridor in this location would increase the visibility of modern	Mitigation measures would include planting (LE2.1 Native Woodland) around the new LTC/A2 junction to reduce the visual impacts to Cobham Park and the construction	Minor	Slight adverse	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
					(Application Document 6.2, Figure 6.6, Viewpoint S-(CH)02), which would result in the removal of small areas of trees and vegetation immediately to the south of HS1 and to the east and west of Brewers Road within RPG1. Multiple utility works would take place along Brewers Road and Halfpence Lane within RPG1 but would not cause removal of trees within the park. Other multi-purpose utility works would take place within the park south of the A2, east and west of Park Pale, and a Park Pale-A2 link would be constructed, resulting in the removal of trees in these areas. The removal of trees would take place in a strip of land located between the A2 and HS1, already physically severed from the rest of the park.	use of hoarding of a sensitive appearance, such as a plain and dark green style (REAC Ref CH001; AMS-OWSI No. 1, Application Document 6.3).	Archaeological excavation and recording would also take place during groundworks within RPG1 to mitigate the physical impact to below-ground archaeological remains associated with RPG1, such as the park pale. Vegetation replanting west of Park Pale to restore the screening of the A2 (Linear Belt Shrubs and Trees LE2.4).			infrastructure within and immediately adjacent to the Registered Park and Garden. According to the LVIA Chapter 7 Appendix 7.9, Table 3.3 (Application Document 6.3) there would be “a perceived change in the night-time environment” within the Local Landscape Character Area that includes Cobham Park “due to the change in street lighting (LED luminaires). Installed on lower columns, emitting reduced light spill and skyglow compared with the existing luminaires, the prominence of new lighting would be limited and perceived in the context of existing lighting. Additional light sources would be present at the Thong Lane green bridge south in the Higham Arable Farmland (sub area Thong) LLCA. However, this would be seen in the context of existing lighting along the A2.” By 2045, “the establishment of tree and shrub belt planting along the southern edge of the modified A2 corridor would to some extent help reduce the effects of new lighting on the night-time environment.” Given that the existing A2 corridor is already lit, it is not assessed that the lighting associated with the Project would result in adverse impacts in heritage terms. The permanent alterations to the asset would be minimal and would occur within peripheral areas, such as the strip between the A2 and HS1 which has already been physically severed from the rest of the park. The vast majority of the park would not experience a physical impact and the peaceful, rural character would be largely preserved. While the presence of infrastructure to	of a green bridge for the Brewers Lane overbridge. The majority of the woodland along the northern edge of the park south of HS1 would be retained, which would maintain some visual screening.			

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
										the north of the park would be increased, this is on the line of existing infrastructure. Furthermore, the creation of the green bridges would create a green link between the park and Shorne Woods with which the asset is historically associated				
SM5	Scheduled Monument	1002199	Earthworks near church, West Tilbury	High	None	A mains work construction secondary access routes would be situated along Coopers Shaw Road and Church Road c. 170m to the east of the asset. Utility works would take place across the open land immediately to the south-west of the asset, situated at the bottom of Hall Hill. The Northern Tunnel Entrance Compound would be located c. 650m south-east of the asset. These works would not alter its relationship with West Tilbury and the Church of St James nor or impede long-distance views across the former Tilbury Marshes. The visual disturbance to the semi-rural setting of the asset would result in a minor impact. The minor impact is assessed to result in a slight adverse effect rather than moderate effect due to the scale and nature of the impacts and the fact that the primary elements of the setting that contribute to the value of the asset will not be harmed.	Good Practice	Minor	Slight adverse	The operational alignment (at Tilbury Viaduct) would be located c. 920m east of the asset. Parts of the operational alignment further to the south-east are likely to be distantly visible from the asset, but this will not harm its value.	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
SM6	Scheduled Monument	1009286	Causewayed enclosure and Anglo-Saxon cemetery 500m ENE of Heath Place	High	None	The high value designated causewayed enclosure and Anglo-Saxon cemetery 500m east-north-east of Heath Place (SM6) is located outside the Order Limits, but immediately to the north of the proposed Brentwood Road Compound and Brentwood Road Utility Hub, and c. 100m west of an online mains works construction access route. Utility diversion works for multi-utility networks would also take place c. 65m east of the asset. The main alignment and false cutting earthworks would be constructed from c. 275m to the south of the asset. These activities would introduce noise and visual intrusion into the setting of the asset, introducing intrusive features in views from the asset to the south, which contribute to its value. The good practice mitigation of appropriate screening of construction compounds, and dust and noise reduction measures, would reduce the impact but would not fully mitigate it due to the close proximity between the Brentwood Road Compound and SM6. This is assessed to result in a moderate adverse impact and a	Good Practice, screening of construction compound	Temporary moderate	Temporary moderate adverse	The high-value designated causewayed enclosure and Anglo-Saxon cemetery 500m east-north-east of Heath Place (SM6) would be located upslope from the false cutting earthworks (c. 275m to the south) and the operational alignment (c. 325m to the south). The Project design has avoided the use of tall noise barriers at this location to reduce the visual impact to the asset. However, there would be clear views from the location of the asset towards the Project, although this would be located within a false cutting that would somewhat restrict views to the road and associated traffic. Traffic along the operational Project would be clearly audible from the asset, with a noise increase of 3db – 5db. The operational alignment would also be located along the base of the dry valley with which the asset is associated. As a result of the Project, some Prehistoric to Roman archaeological sites associated with the asset within the Order Limits would have been removed and replaced by the operational alignment. This change to the setting of the asset would have a permanent impact of moderate adverse magnitude and a moderate adverse effect, which is assessed as significant. The effect is assessed as moderate rather than large due to the scale of change to the overall setting and lack of physical impacts to the asset.	The Project would be located within a false cutting to reduce visibility.	Moderate	Moderate Adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						moderate (rather than large) effect due to the scale and temporary nature of the changes to its setting.								
SM7	Scheduled Monument	1009287	Springfield style enclosure and Iron Age enclosures south of Hill House, Baker Street.	High	None	The high value Springfield' style enclosure and Iron Age enclosures south of Hill House, Baker Street (SM7) is located adjacent to the Order Limits. The working area for buried utility diversions would be located directly adjacent to the eastern end of the scheduled area. Consequently the asset would be preserved in situ. The associated non-designated high value Bronze Age and Iron Age cropmark complex (2078) that surrounds the scheduled area would be physically impacted by the utility diversion (as assessed above). The loss of part of these associated archaeological remains would negatively affect the setting of the scheduled monument as they form part of the same wider area of activity and make a key contribution to its value. The loss of the majority of the Orsett cropmark complex (SM1) to the west would also affect the setting of this asset by removing additional archaeological remains which are	None	Permanent minor adverse	Permanent slight adverse	The utilities would be buried and would not create any visual intrusion during operation. The operational A122 would not be clearly visible and the noise would increase by only c. 1 decibel.	Landscape earthworks and planting would reduce visibility.	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						broadly contemporary with elements of SM7. Other Late Prehistoric archaeological remains would survive unharmed within the setting of this asset, such as 261 and 268. Overall, the removal of some associated archaeological remains of 2078 and SM1 would have a permanent impact of minor adverse magnitude on this high-value asset, resulting in a slight adverse effect after mitigation, which is not significant. A slight rather than a moderate adverse effect is considered appropriate due to the limited area of associated remains which would be disturbed and the fact that the core concentrations of settlement activity would not be harmed.								
SM9	Scheduled Monument	1012185	Second World War anti-aircraft battery at Bowaters Farm	High	None	The asset would be located approximately 165m east of the Northern Tunnel Entrance compound, utilities diversion works, and immediately to the west of an area of the Order Limits in which works would be carried out to establish ecological mitigation areas. These activities would introduce noise and visual impacts to the setting of the asset.	Screening of construction compounds, Good Practice	Minor	Temporary Slight Adverse	The asset would be located approximately 450m east of the operational alignment and would have no clear views towards it (Application Document 6.2, Figure 6.6, Viewpoint N-(CH)08 and N-06). Views in this direction are not a key aspect of its setting. Traffic on operational main alignment would be audible (a moderate adverse change in noise terms of 5db to 10db) and this would constitute an adverse change in its setting. The ecological mitigation area to the east would comprise open mosaic habitat and would not impede views in this	None	Minor adverse	Slight adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						Although the overgrown nature of the asset means that direct views would be limited (Application Document 6.2, Figure 6.6, Viewpoint N-(CH)08 and N-06), construction activity is likely to be clearly audible. This would alter the setting of the asset but would not change its most important characteristics				direction or alter the relationship between the anti-aircraft battery and contemporary defences at Coalhouse Fort (SM14). The effect is considered to be slight rather than moderate due to the nature and scale of change to the setting of the asset.				
SM10	Scheduled Monument	1012964	Romano-British villa and 19 th century reservoir in Cobham Park	High	None	Introduction of additional traffic, light and noise associated with construction.	None	Negligible	Temporary Slight adverse	The long-term operational noise change would not be discernably different from existing noise levels. Operation of the Project would not result in a discernible change within the setting, beyond the establishment of an NMU route c. 80m to the north of the asset, at the northern edge of Cobham Park and the redesign of the existing Halfpence Lane/Thong Lane roundabout in the north-western part of the park. The existing A2 in the vicinity and the Brewers Road overbridge are already lit (see Figure 7.18, Application Document 6.3) and therefore the night-time setting is not likely to be discernably changed.	None	No change	Neutral	South
SM12	Scheduled Monument	1019106	Roman barrow 260m north-east of South Ockendon Hall	High	None	None, major construction activity would be located c. 470m to the north of the asset and would cause no change to elements of its setting that contribute to its value.	None	No change	Neutral	The operational Project would cause an increase in noise at this location (5db to 10db a moderate adverse change in noise terms), causing a small change to the setting of the asset which would have a negligible impact on its overall value. The main alignment would not spatially separate the asset from the sites of the potentially associated former barrows located along the slight ridgeline to the south of the asset.	None	Negligible	Slight adverse	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
SM13	Scheduled Monument	1021092	Tilbury Fort	Very High	None	There would be an aural and visual impact from construction traffic on Fort road within the Order Limits and mains works area c. 230m to north of the asset, and a similar impact from the road immediately north of Fort Road which would be used as a long-term online mains works construction access route.	Good Practice	Negligible	Temporary Slight adverse	The asset is located c. 19km west of the proposed North Tunnel Portal, although this would be obscured by pylons and structures at the Tilbury Sewage Treatment Works (Application Document 6.2, Figure 6.6, Viewpoint N-01 and N-(CH)01-06) and screened by landscape earthworks. The remaining open landscape view from the fort to West Tilbury would not be obstructed by the Project, the closest element of which would be located approximately 865m east of West Tilbury. The landscape earthworks proposed to the south of the North Portal would increase the height of the land in this area. This land has already been raised by landfill, obscuring views between Tilbury Fort (SM13) and Coalhouse Fort (SM14) to the east. The landscape earthworks would increase this height by approximately 8.5m from the current height at their maximum (and by approximately 4.5m from the permitted height of the current landfill operation) but would create no further change to the setting of Tilbury Fort. The operation of the Project would result in no change.	None	No change	Neutral	North
SM14	Scheduled Monument	1013943	Coalhouse Fort battery and artillery defences	Very High	None	The land within the Order Limits immediately to the west of the asset would be used as a light vehicle access route, which will not involve excavation of a fixed trackway (although vehicle matting may be placed). Groundworks will take place in the fields immediately west and north of the asset to establish ecological mitigation	Good Practice	Negligible	Temporary slight adverse	There would be no change to noise levels around the asset. The main alignment and tunnel portal c. 1.3km to the west of the asset would be screened from view by earthworks. The Tilbury Fields landscape earthworks would be slightly visible from the upper parts of the fortifications, as glimpsed views through trees beyond the raised ground of East Tilbury landfill against a backdrop of Tilbury substation and Tilbury Port (Application Document 6.2, Figure 6.6, Viewpoint N-(CH)09).	None	No change	Neutral	North

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						areas. Construction of the tunnel portal would take place c. 1.3km west of the asset and associated earthworks and new landforms of Tilbury Fields would be constructed (within the southern tunnel entrance compound) c. 1.1km west of the asset. Overall, the noise, lighting and visual intrusion caused by construction activities would result in a minor magnitude of impact. The effect is assessed as moderate rather than large due to the character of the impacts, the distance of much of the construction activity and their temporary nature.				Ecological mitigation areas would be present immediately west of the asset: LE6.41 Marsh and Wet Grassland - Coastal Grazing Marsh; LE6.12 Water Bodies and Associated Plants - Shallow Scrape; and LE6.2 Banks and Ditches and also to the north of the asset: LE8.6 Translocated Acid Grassland. The ecological mitigation landscaping would maintain the current open areas which contribute to the value of the asset. The main alignment and earthworks would not harm the relationship between the asset and associated defence features or major topographical features such as the surrounded reclaimed marshes, the River Thames and the southern bank.				
SM17	Scheduled Monument	1013658	New Tavern Fort, Gravesend, including Milton Chantry	High	None	Order Limits is located c. 1.05km east and 1.34km north-east of the asset. A short-term online main construction route will pass through the Conservation Area along Canal Road/Ordnance Road. 'Short-term – Online – Main' routes are generally used for initial access, primarily for site setup works. Once the appropriate offline accesses are created, the short-term routes would not be used for HGV construction traffic other than for very specific works (see Outline Construction Traffic Management	None	Negligible	Temporary Slight adverse	None	None	No change	Neutral	South

Project ID	Designation	Source reference	Name	Value	Construction physical impact	Construction setting impact	Construction mitigation	Overall construction impact	Construction effect	Operation impact description	Operation mitigation	Operation impact	Operation effect	North or South of River Thames
						Plan, Application Document 7.14). There will be an aural and visual impact from the construction traffic this route.								
SM21	Scheduled Monument	1004226	Roman enclosure SE of Vagniacae	High	None	Impact caused to semi-rural setting by construction traffic on adjacent existing A2 dual carriageway, which will be utilised as a long-term online main construction access route.	None	Negligible	Temporary Slight adverse	None. Application Site is located c. 200m to the north across the existing A2 and A2260. Operational elements in this part of the Application Site will comprise new below-ground multi-utility services. The noise levels in the vicinity of the asset will not be increased by the Project.	None	No change	Neutral	South
SM22	Scheduled Monument	1005140	Springhead Roman site	High	None	Impact caused to semi-rural setting by construction traffic on adjacent existing A2 dual carriageway, which will be utilised as a long-term online main construction access route.	None	Negligible	Temporary Slight adverse	None. Application Site is located c. 160m to east across the existing A2 and A2260. Operational elements in this part of the Application Site will comprise new below-ground multi-utility services. The noise levels in the vicinity of the asset will not be increased by the Project.	None required	No change	Neutral	South

Annex B Comparison of visual impact assessments from 2020 and 2022

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction)		Magnitude of effect and significance of effect (opening year winter)		Magnitude of effect and significance of effect (design year summer)		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
South of the River Thames										
S-01	View from footpath NS150, at Gadshill on the outskirts of Higham settlement (Local Landscape Character Area (LLCA) Higham Arable Farmland (sub area Gadshill)). View centred south-south-west for recreational receptors.	Moderate	Moderate	Magnitude of effect: No change	Magnitude of effect: No change	Magnitude of effect: No change	Magnitude of effect: No change	Magnitude of effect: No change	Magnitude of effect: No change	Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
S-02	View from footpath NS160 located on the south-western edge of Great Crabbles Wood (LLCA Shorne Wooded Slopes). View centred south-west for recreational receptors.	Moderate	Moderate	Magnitude of effect: Minor	Magnitude of effect: Negligible	Magnitude of effect: Minor	Magnitude of effect: Negligible	Magnitude of effect: Negligible	Magnitude of effect: Negligible	Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: Limited glimpses of Project construction would be barely noticeable rather than perceptible (refer to criteria in Table 3.43 of Design Manual for Roads and Bridges (DMRB) LA 107 Landscape and Visual Effects ¹⁰), due to intervening landform and vegetation.

¹⁰ Highways England (2020). Design Manual for Roads and Bridges (DMRB), LA107 Landscape and Visual Effects. Revision 2. Accessed August 2023.
<https://www.standardsforhighways.co.uk/dmr/>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Significance of effect: No change from 2020.</p> <p>Opening year winter Magnitude of effect: Limited glimpses of vehicle movements and highway infrastructure would be barely noticeable rather than perceptible in views (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to intervening landform and vegetation.</p> <p>Significance of effect: No change from 2020.</p> <p>Design year summer Magnitude of effect and significance of effect: The partial foreshortening of views resulting from ancient woodland compensation planting, except for the vista incorporated into the planting design, would result in a slight adverse rather than a beneficial effect.</p>
S-03	View from the Kent Downs AONB on footpath NS161, located north of Park Pale, east of Shorne Woods Country Park (LLCA West Kent Downs (sub area Shorne)). View centred south-south-east for recreational receptors.	Very high	Very high	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Moderate beneficial effect	Magnitude of effect: Minor Significance of effect: Moderate beneficial effect	<p>Sensitivity: No change from 2020.</p> <p>Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.</p>
S-04	View from the Kent Downs AONB on Park Pale, part of the National Cycle Network (NCN) Route 177 and Darnley Trail recreational route adjacent to Park Pale overbridge. Also represents views from	Very high	High	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	<p>Note: Gravesham Borough Council and Kent Downs AONB Unit in agreement with magnitude of effect assessment.</p> <p>Sensitivity: The existing A2 corridor is prominent in existing views from this location. DMRB LA107</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	the end of footpath NS161 (LLCA West Kent Downs (sub area Shorne)). View centred south-east for recreational receptors.									<p>Landscape and Visual Effects states at paragraph 3.4.1: <i>'The assessment of susceptibility to change should be tailored to the project.</i></p> <p><i>NOTE A possible example could be where receptors with prominent views towards the highway infrastructure are more likely to have a low susceptibility to change of a project, than receptors with no existing views towards the highway infrastructure which are more likely to have a high susceptibility to change.'</i></p> <p>The sensitivity has therefore been reduced to take account of the prominence of the existing A2 corridor in views.</p> <p>Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor and due to the Project being viewed in the context of the existing A2 corridor.</p>
S-05	View from the Kent Downs AONB on Park Pale overbridge, part of the NCN Route 177 and Darnley Trail recreational route (LLCA West Kent Downs (sub area Shorne)). View centred north-north-west for recreational receptors.	Very high	High	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	<p>Note: Gravesham Borough Council and Kent Downs AONB Unit in agreement with magnitude of effect assessment. Sensitivity: See response above to S-04. Construction Magnitude of effect: No change from 2020.</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Significance of effect: No change from 2020.</p> <p>Opening year winter</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor.</p> <p>Design year summer</p> <p>Magnitude of effect: The widening of the A2 corridor would be noticeable rather than dominant in views compared to the existing view (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to established mitigation planting north and south of the A2 increasing visual containment of the highway corridor and due to the traffic and highway infrastructure of both A2 carriageways already being visible in baseline views.</p> <p>Significance of effect: The combination of high sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to the Project being viewed in the context of the existing A2 corridor.</p>
S-05a	View from the Kent Downs AONB on Park Pale overbridge, part of the NCN Route 177 and Darnley Trail recreational route (LLCA West Kent Downs (sub area Shorne)). View centred west for recreational receptors.	Very high	High	<p>Magnitude of effect: Major</p> <p>Significance of effect: Very large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Very large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Very large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Very large adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Note: Gravesham Borough Council and Kent Downs AONB Unit in agreement with magnitude of effect assessment at construction and opening year.</p> <p>Sensitivity: See response above to S-04.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor.</p> <p>Design year summer</p> <p>Magnitude of effect: The widening of the A2 corridor would be noticeable rather than dominant in views compared to the existing view (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to established mitigation planting north and south of the A2 increasing visual containment of the highway corridor and due to both carriageways, traffic and highway infrastructure already being visible in baseline views.</p> <p>Significance of effect: The combination of high sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to the Project being viewed in the context of the existing A2 corridor.</p>
S-06	View from the Kent Downs AONB and the Grade I listed Darnley Mausoleum and Darnley Trail, within Cobham Hall Grade II* Registered Park and Garden (LLCA West Kent Downs (sub area Cobham)). View centred north-west for recreational receptors.	Very high	Very high	<p>Magnitude of effect: Negligible</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: Negligible</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Note: Gravesham Borough Council and Kent Downs AONB Unit in agreement with assessment.</p> <p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
S-07 & S-(CH)02	View from the Kent Downs AONB on footpath NS182 within Rochester and Cobham Park Golf Club and Cobham Hall Grade II* Registered Park and Garden. Also represents views from footpath NS180 (LLCA West Kent Downs (sub area Cobham)). View centred north-north-west for recreational receptors.	Very high	Very high	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	<p>Note: Gravesham Borough Council and Kent Downs AONB Unit in agreement with assessment.</p> <p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>
S-08	View from the Kent Downs AONB on footpath NS179, within Cobham Hall Grade II* Registered Park and Garden (LLCA West Kent Downs (sub area Cobham)). View centred west-north-west for recreational receptors.	Very high	High	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	<p>Note: Gravesham Borough Council and Kent Downs AONB Unit in agreement with magnitude of effect assessment at construction and opening year.</p> <p>Sensitivity: See response above to S-04.</p> <p>Construction</p> <p>Magnitude of effect: Construction works would largely be seen beyond the High Speed 1 (HS1) corridor in partially filtered views from a gap in the planting alongside HS1, and in the context of prominent rail and road infrastructure. Therefore, the change in views has been assessed as noticeable rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of high sensitivity and moderate magnitude of effect would result in a large adverse effect due to the more open nature of views towards construction works and the</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										existing A2 corridor following vegetation removal. Opening year winter Magnitude of effect: The widening of the A2 corridor would largely be seen beyond the HS1 corridor and in the context of prominent rail and road infrastructure. Therefore, the change in views has been assessed as noticeable rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of high sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to the Project being viewed in the context of the existing HS1 and A2 corridors. Design year summer Magnitude of effect: The slight increased perception of highway infrastructure along the A2 corridor above established belt of shrub and tree planting mitigation has been assessed as perceptible rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight adverse effect due to the Project being viewed in the context of the existing HS1 and A2 corridors.
S-09	View from the Kent Downs AONB on Park Pale/Darnley Trail/NCN Route 177, adjacent to Brewers Wood, part of Shorne Woods Country Park (LLCA West Kent Downs (sub area	Very high	High	Magnitude of effect: Major	Magnitude of effect: Moderate	Magnitude of effect: Moderate	Magnitude of effect: Moderate	Magnitude of effect: Moderate	Magnitude of effect: Minor	Note: Gravesham Borough Council and Kent Downs AONB Unit in agreement with magnitude of effect assessment. Sensitivity: See response above to S-04. Construction

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	Shorne)). View centred south for recreational receptors.			Significance of effect: Very large adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Very large adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Large adverse effect	Significance of effect: Slight adverse effect	<p>Magnitude of effect: Vegetation retained between Park Pale and the A2 corridor would reduce the visibility of construction works. The change in views has therefore been assessed as noticeable rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of high sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to construction works being viewed in the context of the existing A2 corridor.</p> <p>Opening year winter</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor and due to the Project being viewed in the context of the existing A2 corridor.</p> <p>Design year summer</p> <p>Magnitude of effect: The slight increased perception of highway infrastructure along the A2 corridor above established mitigation planting has been assessed as perceptible rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight adverse effect due to the Project being viewed in the context of the existing A2 corridor.</p>
S-10	View from the Kent Downs AONB on a path within the Pleasure Grounds at Cobham Hall	Very high	Very high	Magnitude of effect: Negligible	Magnitude of effect: Negligible	Magnitude of effect: Negligible	Magnitude of effect: Negligible	Magnitude of effect: Negligible	Magnitude of effect: No change	<p>Note: Gravesham Borough Council and Kent Downs AONB Unit in agreement with assessment.</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	part of the Cobham Hall Grade II* Registered Park and Garden (LLCA West Kent Downs (sub area Cobham)). View centred north-north-west for recreational receptors.			Significance of effect: Slight adverse effect	Significance of effect: Slight adverse effect	Significance of effect: Slight adverse effect	Significance of effect: Slight adverse effect	Significance of effect: Slight adverse effect	Significance of effect: <i>Neutral</i> effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Design year summer Magnitude of effect and significance of effect: The combination of existing vegetation and established mitigation planting in leaf would result in no views towards the Project and therefore a neutral effect.
S-11	View from the Kent Downs AONB on footpath NS179 within Cobham Hall Grade II* Registered Park and Garden (LLCA West Kent Downs (sub area Cobham)). View centred north-north-west for recreational receptors.	Very high	Very high	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Minor Significance of effect: Moderate adverse effect	Magnitude of effect: <i>Moderate</i> Significance of effect: <i>Large</i> adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: <i>Minor</i> Significance of effect: <i>Moderate</i> adverse effect	Note: Kent Downs AONB Unit in agreement with magnitude of effect assessment at construction and opening year. Gravesham Borough Council in agreement with significance of effect assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: The new Brewers Road green bridge would be more visible than the existing overbridge, in addition to traffic and highway infrastructure along the A2 corridor compared to the existing view. Therefore, the change in views has been assessed as noticeable rather than perceptible (refer to

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of very high sensitivity and moderate magnitude of effect would result in a large adverse effect due to increased visibility of the bridge structure and traffic and highway infrastructure along the A2 corridor.</p> <p>Design year summer</p> <p>Magnitude of effect: The increased perception of highway infrastructure along the A2 corridor compared to the existing view has been assessed as perceptible rather than barely noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). The combination of existing trees in leaf along the edge of Cobham Hall Registered Park and Garden and proposed trees in leaf on the embankment of Brewers Road green bridge would densely filter views of Brewers Road green bridge.</p> <p>Significance of effect: The combination of very high sensitivity and minor magnitude of effect would result in a moderate adverse effect due to increased visibility of highway infrastructure.</p>
S-12	View from the Kent Downs AONB on Brewers Road/Luddesdown Trek/NCN Route 177, adjacent to Brewers Wood/Shorne Wood (part of Shorne Woods Country Park) (LLCA West Kent Downs (sub area Shorne)). View centred south-south-west for recreational receptors.	Very high	High	Magnitude of effect: Major	Magnitude of effect: Moderate	Magnitude of effect: Major	Magnitude of effect: Moderate	Magnitude of effect: Moderate	Magnitude of effect: Minor	<p>Note: Kent Downs AONB Unit in agreement with magnitude of effect assessment.</p> <p>Sensitivity: See response above to S-04.</p> <p>Construction</p> <p>Magnitude of effect: The assessment assumes that Brewers Road green bridge would have already been constructed, as the recreational route would not be open before this point in time. Most construction works for the A2</p>

Visual receptor	Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
	2020	2022	2020	2022	2020	2022	2020	2022	
									<p>widening, such as for the new carriageways and retaining walls, would be obscured by both the Brewers Road green bridge structure and the existing road cutting. The change in views has therefore been assessed as noticeable rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of high sensitivity and moderate magnitude of effect would result in a large adverse effect due to the open nature of views towards construction activity associated with new and replacement highway infrastructure above the existing road cutting following vegetation removal.</p> <p>Opening year winter</p> <p>Magnitude of effect: Brewers Road green bridge and highway infrastructure along the A2 corridor would be more apparent than in existing views, although the new carriageways and retaining walls along the A2 corridor would remain largely screened by the existing road cutting. The change in views has therefore been assessed as noticeable rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of high sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to the Project being viewed in the context of the existing A2 corridor.</p> <p>Design year summer</p> <p>Magnitude of effect: Proposed planting on both sides of the Brewers Road green bridge would soften the appearance of the bridge compared</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										to existing views, as well as helping to screen views of highway infrastructure along the A2 corridor. The change in views has therefore been assessed as perceptibly beneficial rather than noticeably adverse (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight beneficial effect due to established mitigation planting softening the appearance of Brewers Road green bridge in views.
S-13	View from the Kent Downs AONB on Brewers Road overbridge and the Luddesdown Trek above the A2 eastbound carriageway (LLCA West Kent Downs (sub area Shorne)). View centred south for recreational receptors.	Very high	High	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Minor Significance of effect: Slight beneficial effect	Note: Kent Downs AONB Unit in agreement with magnitude of effect assessment at construction. Gravesham Borough Council in agreement with magnitude of effect assessment at construction and opening year. Sensitivity: See response above to S-04. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: No change from 2020. Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor. Design year summer Magnitude of effect: Proposed planting on both sides of the Brewers Road green bridge would improve the existing experience for users of the

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										crossing, as the M2/A2 corridor would be less apparent when crossing the bridge. The change in views has therefore been assessed as perceptibly beneficial rather than noticeably adverse (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight beneficial effect due to established mitigation planting softening the appearance of the A2 corridor in views.
S-14	View from the Kent Downs AONB on Brewers Road overbridge and the Luddesdown Trek above A2 westbound carriageway/HS1 (LLCA West Kent Downs (sub area Shorne)). View centred north-east for recreational receptors.	Very high	High	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Minor Significance of effect: Slight beneficial effect	Note: Kent Downs AONB Unit in agreement with magnitude of effect assessment at construction. Gravesham Borough Council in agreement with magnitude of effect assessment at construction and opening year. Sensitivity: See response above to S-04. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: No change from 2020. Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor. Design year summer Magnitude of effect: Proposed planting on both sides of the Brewers Road green bridge would improve the existing experience for users of the crossing, as the M2/A2 corridor would

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										be less apparent when crossing the bridge. The change in views has therefore been assessed as perceptibly beneficial rather than noticeably adverse (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight beneficial effect due to established mitigation planting softening the appearance of the A2 corridor in views.
S-15	View from the Kent Downs AONB on footpath NS178 located adjacent to the Halfpence Lane roundabout (LLCA West Kent Downs (sub area Cobham)). View centred north for recreational receptors.	Very high	High	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Moderate adverse effect	Magnitude of effect: No change Significance of effect: Neutral effect	Sensitivity: See response above to S-04. Construction Magnitude of effect: Construction works would be seen beyond the Brewers Road, Halfpence Lane and Thong Lane roundabout, with some construction works obscured by retained vegetation along the HS1 corridor. The change in views has therefore been assessed as noticeable rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of high sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to construction works being viewed in the context of the existing road corridor and roundabout. Opening year winter Magnitude of effect: The slight increased perception of the realigned Thong Lane and vehicles and highway infrastructure along the A2 corridor compared to the existing view has been assessed as a perceptible rather than a dominant change in views (refer to criteria in Table 3.43 of

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight adverse effect due to the Project being viewed in the context of the existing road corridor and roundabout. Design year summer Magnitude of effect and significance of effect: The presence of established mitigation planting in leaf would result in no discernible change in views towards the Project and therefore a neutral effect.
S-16	View from the Kent Downs AONB and Randall Heath Woods, on a permissive path within Shorne Woods Country Park (LLCA West Kent Downs (sub area Shorne)). View centred south-south-west for recreational receptors.	Very high	Very high	Magnitude of effect: Minor Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Moderate adverse effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: <i>Negligible</i> Significance of effect: <i>Slight adverse</i> effect	Note: Gravesham Borough Council and Kent Downs AONB Unit in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Design year summer Magnitude of effect: Glimpses of the M2/A2/A122 Lower Thames Crossing junction would remain. Therefore, the change in views has been assessed as barely noticeable rather than no discernible change (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of very high sensitivity and negligible magnitude of effect

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										would result in a slight adverse effect due to glimpses of the Project remaining in views.
S-17	View from the Kent Downs AONB on the NCN Route 177/Timeball and Telegraph Trail Long Distance Path, on Thong Lane adjacent to the Inn on the Lake Hotel (LLCA West Kent Downs (sub area Shorne)). View centred south for recreational receptors.	Very high	High	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	<p>Note: Kent Downs AONB Unit in agreement with magnitude of effect assessment. Gravesham Borough Council in agreement with magnitude of effect assessment at construction and opening year.</p> <p>Sensitivity: See response above to S-04.</p> <p>Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.</p> <p>Opening year winter Magnitude of effect: No change from 2020. Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor.</p> <p>Design year summer Magnitude of effect: Increased visibility of vehicle movements and highway infrastructure along the A2 corridor compared to the existing view and the presence of Thong Lane green bridge south and the retaining wall south of the A2 corridor in views would be a noticeable change rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to the partial screening provided by established mitigation planting north of the A2 corridor and along the embankment of Thong Lane green bridge south.</p> <p>Significance of effect: The combination of high sensitivity and</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary	
		2020	2022	2020	2022	2020	2022	2020	2022		
										moderate magnitude of effect would result in a moderate adverse effect due to the Project being viewed in the context of the existing A2 corridor.	
S-18	View from the Kent Downs AONB on the HS1 green bridge and Timeball and Telegraph Trail Long Distance Path (LLCA West Kent Downs (sub area Cobham)). View centred north-west for recreational receptors.	Very high	Very high	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: <i>Moderate</i> Significance of effect: <i>Large</i> adverse effect	Note: Kent Downs AONB Unit in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Design year summer Magnitude of effect: Increased visibility of highway infrastructure along the A2 corridor compared to the existing view and the presence of Thong Lane green bridge south in views would be a noticeable change rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to the partial screening provided by established mitigation planting south of the A2 corridor and along Thong Lane green bridge south. Significance of effect: The combination of very high sensitivity and moderate magnitude of effect would result in a large adverse effect due to the Project being viewed in the context of highway infrastructure along the A2 corridor.
S-19	View from footpath NS177, located within Jeskyns Community Woodland. Also	High	High	Magnitude of effect: Minor	Magnitude of effect: <i>Moderate</i>	Magnitude of effect: Minor	Magnitude of effect: <i>Moderate</i>	Magnitude of effect: Negligible	Magnitude of effect: <i>Minor</i>	Note: No comments from Kent Downs AONB Unit.	

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	represents views from footpath NS177A (LLCA Istead Arable Farmlands). View centred north-west for recreational receptors.			Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Slight adverse effect	Significance of effect: Slight adverse effect	Gravesham Borough Council in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: The combination of overhead line (OHL) works, vegetation removal and construction works along the A2 corridor and at the M2/A2/A122 Lower Thames Crossing junction would be noticeable rather than perceptible in views (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020. Opening year winter Magnitude of effect: Parts of the M2/A2/A122 Lower Thames Crossing junction would be visible above intervening vegetation. Therefore, the change in views has been assessed as noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020. Design year summer Magnitude of effect: Limited parts of the M2/A2/A122 Lower Thames Crossing junction would remain visible above intervening vegetation and established mitigation planting. Therefore, the change in views has been assessed as perceptible rather than barely noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020.
S-20	View from a recreational permissive route within Jeskyns Community	High	High	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Note:

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	Woodland (LLCA Istead Arable Farmlands). View centred north-east for recreational receptors.			Moderate Significance of effect: Large adverse effect	Moderate Significance of effect: Large adverse effect	Minor Significance of effect: Moderate adverse effect	Minor Significance of effect: Moderate adverse effect	Negligible Significance of effect: Slight adverse effect	Negligible Significance of effect: Slight adverse effect	No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
S-20a	View from Jeskyns Community Woodland. Also represents views from northern end of footpath NS177 (LLCA Istead Arable Farmlands). View centred north-east for recreational receptors.	High	High	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: <i>Slight</i> adverse effect	Note: No comments from Kent Downs AONB Unit. Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Design year summer Magnitude of effect: No change from 2020. Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight adverse effect due to the Project being viewed in the context of existing OHL and highway infrastructure along the A2 corridor.

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
S-21	View from footpath NU29/Wealdway recreational route to the north of Ifield Court. Also represents views from footpath NU18 (LLCA Istead Arable Farmlands). View centred east-north-east for recreational receptors.	High	High	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
S-22	View from Watling Street on the A2 overbridge (LLCA Gravesend Southern Fringe). View centred east-south-east for users of the main road.	Low	Low	Magnitude of effect: Major Significance of effect: Slight adverse effect	Magnitude of effect: <i>Moderate</i> Significance of effect: Slight adverse effect	Magnitude of effect: Moderate Significance of effect: Slight adverse effect	Magnitude of effect: <i>Minor</i> Significance of effect: Slight adverse effect	Magnitude of effect: Moderate Significance of effect: Slight adverse effect	Magnitude of effect: <i>Negligible</i> Significance of effect: <i>Neutral</i> effect	Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: The assessment assumes that works to the existing Marling Cross overbridge would have been completed, as the road would not be open before this point in time. Construction works would also be viewed in the context of prominent road infrastructure. The change in views has therefore been assessed as noticeable rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020. Opening year winter Magnitude of effect: The widening of the A2 corridor and slip roads at the

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>M2/A2/A122 Lower Thames Crossing junction would be perceptible rather than noticeable in views (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to the A2 corridor, associated traffic and highway infrastructure already being prominent in existing views.</p> <p>Significance of effect: No change from 2020.</p> <p>Design year summer</p> <p>Magnitude of effect: The widening of the A2 corridor and slip roads at the M2/A2/A122 Lower Thames Crossing junction would be barely noticeable in views rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to the partial screening provided by established mitigation planting and due to the A2 corridor, associated traffic and highway infrastructure already being prominent in existing views.</p> <p>Significance of effect: The combination of low sensitivity and negligible magnitude of effect would result in a neutral effect due to the Project appearing similar to the existing A2 corridor in views.</p>
S-23	View from NCN Route 177 adjacent to Claylane Wood, and the A2/Watling Street (LLCA Gravesend Southern Fringe). View centred south-east for recreational receptors.	Low	N/A	Magnitude of effect: Not assessed	Magnitude of effect: Not assessed	Magnitude of effect: Not assessed	Magnitude of effect: Not assessed	Magnitude of effect: Not assessed	Magnitude of effect: Not assessed	<p>Note: No comments from Kent Downs AONB Unit or Gravesham Borough Council.</p> <p>Sensitivity: Visual receptors at this Representative Viewpoint have not been assigned a sensitivity, as NCN Route 177 would be permanently closed and there would be no available views to the Project.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>
S-24	View from footpath NS167 adjacent to Claylane Wood. Also represents views from bridleway NS174 (LLCA Higham Arable Farmland (sub area Thong)) looking towards the Kent Downs AONB. View centred east for recreational receptors.	Very high	<i>Moderate</i>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Very large adverse effect</p>	<p>Magnitude of effect: <i>Not assessed</i></p> <p>Significance of effect: <i>Not assessed</i></p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Very large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: <i>Large</i> adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Very large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: <i>Large</i> adverse effect</p>	<p>Note: No comments from Kent Downs AONB Unit.</p> <p>Sensitivity: Recreational receptors using local routes opposed to long distance routes have been assessed as moderate sensitivity, as indicated by DMRB LA107 Landscape and Visual Effects.</p> <p>Construction</p> <p>Magnitude and significance of effect: An assessment has not been undertaken during construction at this Representative Viewpoint, as the footpath would be temporarily closed and there would be no available views to the Project.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor.</p>
S-25	View from footpath NS167 at the western edge of Thong village and Thong Conservation Area (LLCA Higham Arable Farmland (sub area Thong)). View centred south-west for recreational receptors.	Moderate	Moderate	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: <i>Not assessed</i></p> <p>Significance of effect: <i>Not assessed</i></p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: <i>Major</i></p> <p>Significance of effect: <i>Large</i> adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Note: No comments from Kent Downs AONB Unit.</p> <p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude and significance of effect: An assessment has not been undertaken during construction at this Representative Viewpoint, as the</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										footpath would be temporarily closed and there would be no available views to the Project. Opening year winter Magnitude of effect: The false cutting earthworks at the M2/A2/A122 Lower Thames Crossing junction would be dominant rather than noticeable in views (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to their location in the foreground. Significance of effect: The combination of moderate sensitivity and major magnitude of effect would result in a large adverse effect due to the Project appearing across a large proportion of the view. Design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
S-26	View from Thong village and Thong Conservation Area (residential properties along the east of Thong Lane) (LLCA Higham Arable Farmland (sub area Thong)). View centred south-south-east for residential receptors.	High	High	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
S-27	View from footpath NS169, looking towards	Very high	Moderate	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Note:

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	Shorne Woods and the Kent Downs AONB (LLCA Higham Arable Farmland (sub area Thong)). View centred east-south-east for recreational receptors.			Major Significance of effect: Very large adverse effect	Not assessed Significance of effect: Not assessed	Major Significance of effect: Very large adverse effect	Major Significance of effect: Large adverse effect	Moderate Significance of effect: Large adverse effect	Moderate Significance of effect: Moderate adverse effect	No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: Recreational receptors using local routes opposed to long distance routes have been assessed as moderate sensitivity, as indicated by DMRB LA107 Landscape and Visual Effects. Construction Magnitude and significance of effect: An assessment has not been undertaken during construction at this Representative Viewpoint, as the footpath would be temporarily closed and there would be no available views to the Project. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor.
S-28 & S-(CH)01	View from footpath NS169 adjacent to Gravesend urban edge, looking towards Shorne Woods within the Kent Downs AONB, and St Mary Magdalene Church, Cobham (LLCA Higham Arable Farmland (sub area Thong)). View centred east-south-east for recreational receptors.	Very high	Moderate	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Not assessed Significance of effect: Not assessed	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Note: No comments from Kent Downs AONB Unit. Sensitivity: Recreational receptors using local routes opposed to long distance routes have been assessed as moderate sensitivity, as indicated by DMRB LA107 Landscape and Visual Effects. Construction Magnitude and significance of effect: An assessment has not been undertaken during construction at this Representative Viewpoint, as the footpath would be temporarily closed

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										and there would be no available views to the Project. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor.
S-29	View from the Kent Downs AONB on Shorne Ifield Road located to the north of Shorne Woods Country Park (LLCA Higham Arable Farmland (sub area Chalk)). View centred north-west for users of the local road.	Very high	High	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Minor Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Note: Kent Downs AONB Unit in agreement with magnitude of effect assessment at construction. Gravesham Borough Council in agreement with significance of effect assessment at construction. Sensitivity: Transient views from local/regional routes are considered to be of moderate sensitivity in DMRB LA107 Landscape and Visual Effects. However, in recognition of the location of this Representative Viewpoint adjoining the northern edge of the Kent Downs AONB, the sensitivity has been assessed as high, rather than very high. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: No change from 2020. Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight adverse effect due to the limited overall visibility of the Project in the elevated, distant view. Design year summer

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Magnitude of effect: The partial foreshortening of views resulting from ancient woodland compensation planting, except for the vista incorporated into the planting design, would mean the Project would be perceptible rather than barely noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: No change from 2020.</p>
S-30	View from Thong Lane on the eastern urban edge of Gravesend (Riverview Park) adjacent to the entrance of Southern Valley Golf Club (LLCA Gravesend Urban Area). View centred south-south-east for users of the local road.	Moderate	Moderate	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment.</p> <p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>
S-31	View from footpath NG8 located within Southern Valley Golf Club at the urban edge of Gravesend (Riverview Park) (LLCA Higham Arable Farmland (sub area Chalk)). View centred east-north-east for recreational receptors.	High	<i>Moderate</i>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: <i>Not assessed</i></p> <p>Significance of effect: <i>Not assessed</i></p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment.</p> <p>Sensitivity: Recreational receptors using local routes opposed to long distance routes have been assessed as moderate sensitivity, as indicated by DMRB LA107 Landscape and Visual Effects.</p> <p>Construction</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Magnitude and significance of effect: An assessment has not been undertaken during construction at this Representative Viewpoint, as the footpath would be temporarily closed and there would be no available views to the Project.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>
S-32	View from elevated location along footpath NS316 located immediately west of Shorne Hill, with views to the Kent Downs AONB. Also represents views from footpath NS163 (LLCA Higham Arable Farmland (sub area Chalk)). View centred west for recreational receptors.	Very high	Moderate	<p>Magnitude of effect: Major</p> <p>Significance of effect: Very large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment.</p> <p>Sensitivity: Recreational receptors using local routes opposed to long distance routes have been assessed as moderate sensitivity, as indicated by DMRB LA107 Landscape and Visual Effects.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor.</p> <p>Opening year winter</p> <p>Magnitude of effect: The South Portal approach road cutting and Chalk Park hilltop landform would be perceptible in views rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to the long-range nature of views and the existing urban backdrop of Gravesend, Grays and Tilbury.</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Significance of effect: The combination of moderate sensitivity and minor magnitude of effect would result in a slight adverse effect due to the limited overall visibility of the Project in the elevated, distant view.</p> <p>Design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: The combination of moderate sensitivity and minor magnitude of effect would result in a slight adverse effect due to the limited overall visibility of the Project in the elevated, distant view.</p>
S-33	View taken at intersection of footpaths NG7, NG8, NG9, on northern edge of Southern Valley Golf Club (LLCA Higham Arable Farmland (sub area Chalk)). View centred north-west for recreational receptors.	Moderate	Moderate	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: <i>Not assessed</i></p> <p>Significance of effect: <i>Not assessed</i></p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: <i>Moderate</i></p> <p>Significance of effect: <i>Moderate</i> adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude and significance of effect: An assessment has not been undertaken during construction at this Representative Viewpoint, as the footpath would be temporarily closed and there would be no available views to the Project. Opening year winter Magnitude of effect: The upper chalk slopes of the South Portal approach road cutting and the Chalk Park hilltop landform would be visible across the view in the midground. The change in views has therefore been assessed as noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of moderate sensitivity and moderate magnitude of effect</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										would result in a moderate adverse effect due to the upper slopes of the cutting being visible across the view, while the carriageway and associated vehicles and highway infrastructure would be screened in the cutting. Design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
S-34	View from footpath NS163A located adjacent to residential properties fronting the A226 Gravesend Road (LLCA Higham Arable Farmland (sub area Chalk)). View centred south-west for recreational receptors.	Very high	Moderate	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Not assessed Significance of effect: Not assessed	Magnitude of effect: Minor Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: Recreational receptors using local routes opposed to long distance routes have been assessed as moderate sensitivity, as indicated by DMRB LA107 Landscape and Visual Effects. Construction Magnitude and significance of effect: An assessment has not been undertaken during construction at this Representative Viewpoint, as the footpath would be temporarily closed and there would be no available views to the Project. Opening year winter Magnitude of effect: No change from 2020. Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor. Design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
S-35 & S-(CH)03a	View from A226 Gravesend Road near Chalk (LLCA Higham Arable Farmland (sub area Chalk)). View centred south-south-east for users of the main road.	Low	Low	Magnitude of effect: Major Significance of effect: Moderate adverse effect	Magnitude of effect: Major Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: <i>Moderate</i> Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: <i>Negligible</i> Significance of effect: <i>Neutral</i> effect	<p>Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: No change from 2020.</p> <p>Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.</p> <p>Opening year winter Magnitude of effect: The north-eastern tip of the Chalk Park hilltop landform, the new sub-station and the South Portal emergency access road to the A226 would be noticeable rather than perceptible in views (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020.</p> <p>Design year summer Magnitude of effect: The north-eastern tip of the Chalk Park hilltop landform, the new sub-station and the South Portal emergency access road to the A226 would be barely noticeable in views rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to the partial screening and softening of features provided by established mitigation planting. Significance of effect: The combination of low sensitivity and negligible magnitude of effect would result in a neutral effect due to the integration of features by established mitigation planting.</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
S-36	View from footpath NS172 off Queen's Farm Road. Also represents views from footpath NG5 (LLCA Higham Arable Farmland (sub area Chalk)). View centred west for recreational receptors.	Moderate	Moderate	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Neutral effect	Magnitude of effect: Negligible Significance of effect: Neutral effect	Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
S-37 & S-(CH) 03b	View from NCN Route 1/footpath NG2/NG4 adjacent to former Thames and Medway Canal (LLCA Shorne and Higham Marshes). View centred south for recreational receptors.	High	High	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
S-38a	View from Saxon Shore Way Long Distance Path/footpath NS138 at intersection with bridleway NS318 adjacent to Shornemead	High	High	Magnitude of effect: Moderate	Magnitude of effect: <i>Minor</i>	Magnitude of effect: Minor	Magnitude of effect: Minor	Magnitude of effect: Minor	Magnitude of effect: Minor	Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment.

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	Fort. Also represents views from footpath NG1 (LLCA Shorne and Higham Marshes). View centred north-west for recreational receptors.			Significance of effect: Moderate adverse effect	Significance of effect: <i>Slight</i> adverse effect	Significance of effect: Slight adverse effect	Significance of effect: Slight adverse effect	Significance of effect: Slight adverse effect	Significance of effect: Slight adverse effect	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: Due to the long-range nature of views and the presence of Tilbury Docks and extensive OHLs on the north side of the River Thames, the change in views would be perceptible rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight adverse effect due to the limited overall visibility of the Project in the wide panoramic view.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>
S-38b	View from Saxon Shore Way Long Distance Path/footpath NS138 at intersection with bridleway NS318 adjacent to Shornemead Fort. Also represents views from footpath NG1 (LLCA Shorne and Higham Marshes). View centred south-west for recreational receptors.	High	High	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	<p>Note: No comments from Kent Downs AONB Unit. Gravesham Borough Council in agreement with assessment.</p> <p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
S-39 & S-(CH)04	View from local recreational ground on area of elevated ground at Windmill Hill, within residential area of Gravesend (LLCA Gravesend Urban Area). View centred north-north-east for residential receptors.	High	High	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	<p>Note: No comments from Kent Downs AONB Unit. Gravesend Borough Council in agreement with assessment. Sensitivity: No change from 2020. Construction Magnitude of effect: Due to the long-range nature of views and the presence of Tilbury Docks and extensive OHLs on the north side of the River Thames, the change in views would be perceptible rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight adverse effect due to construction works being viewed in the context of existing industrial buildings along the River Thames. Opening year winter and design year summer Magnitude of effect: Views towards the Project on the northern bank of the River Thames would be long-range in nature and viewed in the urban context of Tilbury and Grays. Therefore, the change in views would be barely noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020.</p>
North of the River Thames										
N-01	View from Grade I listed Tilbury Fort adjacent to NCN Route 13 and footpath 146/Thames Estuary Path/Two Forts Way (LLCA Tilbury	Very high	High	Magnitude of effect: Negligible	Magnitude of effect: Minor	Magnitude of effect: Negligible	Magnitude of effect: Negligible	Magnitude of effect: Negligible	Magnitude of effect: Negligible	<p>Sensitivity: High sensitivity takes account of the cultural/historic significance of the site. It is not considered to be a 'very important national/international...cultural/historic site'</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	Marshes). View centred north-north-east for recreational receptors.			Significance of effect: Slight adverse effect	Significance of effect: Slight adverse effect	Significance of effect: Neutral effect	Significance of effect: <i>Slight adverse effect</i>	Significance of effect: Neutral effect	Significance of effect: <i>Slight adverse effect</i>	that would align with very high sensitivity under DMRB LA107 Landscape and Visual Effects. Construction Magnitude of effect: The former Tilbury Power Station site within 1km of Tilbury Fort would be used for a concrete batching plant and segment factory. The change in views has therefore been assessed as perceptible rather than barely noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: The combination of high sensitivity and negligible magnitude of effect would result in a slight adverse effect due to long-range glimpses remaining towards the Project.
N-02	View from Fort Road, adjacent to residential properties at Tilbury urban edge (LLCA Tilbury and Docks Urban Area). View centred east-north-east for residential receptors.	High	High	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-03	View from Two Forts Way Coastal Path/footpath 146 and NCN Route 13 (LLCA Tilbury Marshes). View	High	High	Magnitude of effect: Major	Magnitude of effect: Major	Magnitude of effect: Moderate	Magnitude of effect: Moderate	Magnitude of effect: Moderate	Magnitude of effect: Moderate	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020.

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	centred north-north-east for recreational receptors.			Significance of effect: Large adverse effect	Significance of effect: Large adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-04	View from Two Forts Way Coastal Path/footpath 146 and NCN Route 13 (LLCA Tilbury Marshes). View centred west-north-west for recreational receptors.	High	High	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-05 & N-(CH)09	View from Coalhouse Fort Scheduled Monument, adjacent to Two Forts Way Coastal Path/bridleway 187 and NCN Route 13, looking towards the Kent Downs AONB (LLCA Mucking Marshes). View centred south-south-west for visitors.	Very high	High	Magnitude of effect: Minor Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Moderate adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Sensitivity: High sensitivity takes account of the cultural/historic significance of the site. It is not considered to be a 'very important national/international...cultural/historic site' that would align with very high sensitivity under DMRB LA107 Landscape and Visual Effects. Construction Magnitude of effect: The creation of the water vole mitigation area in the foreground of views would be noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020. Opening year winter Magnitude of effect: Most of the Project would be glimpsed in the

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>distance and seen in the context of Tilbury Docks and OHL. The change in views has therefore been assessed as barely noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of high sensitivity and negligible magnitude of effect would result in a slight adverse effect due to the long-range nature of views.</p> <p>Design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>
N-06	View from footpath 200 adjacent to Bowaters Farm (LLCA Tilbury Marshes). View centred south-south-east for recreational receptors.	Moderate	Moderate	<p>Magnitude of effect: Major</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: <i>Moderate</i></p> <p>Significance of effect: <i>Moderate</i> adverse effect</p>	<p>Magnitude of effect: Negligible</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: <i>Minor</i></p> <p>Significance of effect: Slight adverse effect</p>	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter</p> <p>Magnitude of effect: Earthworks associated with the North Portal operational access bridge and Tilbury Fields would be visible in the foreground and midground. The change in views has therefore been assessed as noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of moderate sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to the presence of new earthworks in views.</p> <p>Design year summer</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Magnitude of effect: Earthworks associated with the North Portal operational access bridge and Tilbury Fields would remain partially visible in the foreground and midground. The change in views has therefore been assessed as perceptible rather than barely noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: No change from 2020.</p>
N-07	View from bridleway 58 (off Love Lane) (LLCA West Tilbury Urban Fringe). View centred west-south-west for recreational receptors.	Moderate	Moderate	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: <i>Moderate</i></p> <p>Significance of effect: <i>Moderate</i> adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: <i>Minor</i></p> <p>Significance of effect: <i>Slight</i> adverse effect</p>	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter</p> <p>Magnitude of effect: The Project route embankments, Tilbury Viaduct and associated vehicles and highway infrastructure have been assessed as noticeable rather than dominant in views (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to intervening buildings, landform and vegetation restricting visibility.</p> <p>Significance of effect: The combination of moderate sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to the mid-range nature of views and the partial screening provided by intervening features.</p> <p>Design year summer</p> <p>Magnitude of effect: The combination of existing vegetation and established mitigation planting in leaf would reduce visibility of the Project route embankments, Tilbury Viaduct and associated vehicles and highway infrastructure. The change in</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										views has therefore been assessed as perceptible rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of moderate sensitivity and minor magnitude of effect would result in a slight adverse effect due to the limited nature of views towards the Project.
N-08	View from Low Street Lane adjacent to cluster of rural residential properties (LLCA West Tilbury Urban Fringe). View centred east for residential receptors.	High	Moderate	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Sensitivity: 'Static views from less populated residential areas', such as this small group of properties along Low Street Lane are considered to be of moderate sensitivity in DMRB LA107 Landscape and Visual Effects. Construction Magnitude of effect: No change from 2020. Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-09	View from footpath 67 (off Blue Anchor Lane) adjacent to Holford Farm (LLCA West Tilbury Urban Fringe). View centred east-north-east for recreational receptors.	High	Moderate	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Sensitivity: Recreational receptors using local routes opposed to long distance routes have been assessed as moderate sensitivity, as indicated by DMRB LA107 Landscape and Visual Effects. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor.</p> <p>Design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>
N-10	View from Sandy Lane adjacent to residential properties located in Chadwell St Mary urban fringe (LLCA Grays/Chadwell St Mary Urban Area). View centred south-east for residential receptors.	High	High	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>
N-11	View from junction of bridleway 63 and footpath 66 (off Muckingford Road) (LLCA West Tilbury Urban Fringe). View centred south-east for recreational receptors.	Moderate	Moderate	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>
N-12	View from residential properties in East Tilbury (off Beechcroft Avenue) (LLCA West Tilbury Urban Fringe). View	High	High	<p>Magnitude of effect: Major</p>	<p>Magnitude of effect: Major</p>	<p>Magnitude of effect: Moderate</p>	<p>Magnitude of effect: Moderate</p>	<p>Magnitude of effect: Minor</p>	<p>Magnitude of effect: Moderate</p>	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	centred south-west for residential receptors.			Significance of effect: Large adverse effect	Significance of effect: Large adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	<p>Significance of effect: No change from 2020.</p> <p>Opening year winter</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Design year summer</p> <p>Magnitude of effect: Tilbury Viaduct and false cutting earthworks along the Project route would remain partially visible in the midground. The change in views has therefore been assessed as noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: No change from 2020.</p>
N-13	View from edge of public open space between Linford and East Tilbury (off Muckingford Road) (LLCA Linford/Buckingham Hill Urban Fringe). View centred south-west for users of the public open space.	Moderate	Moderate	Magnitude of effect: Major Significance of effect: Moderate adverse effect	Magnitude of effect: Major Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: <i>Moderate</i> Significance of effect: <i>Moderate</i> adverse effect	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Design year summer</p> <p>Magnitude of effect: Muckingford Road green bridge and false cutting earthworks along the Project route would remain partially visible in the midground. The change in views has therefore been assessed as noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction)		Magnitude of effect and significance of effect (opening year winter)		Magnitude of effect and significance of effect (design year summer)		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										Significance of effect: The combination of moderate sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to the Project remaining visible in the midground.
N-14	View from Hoford Road Protected Lane (LLCA West Tilbury Urban Fringe). View centred east for recreational receptors.	Moderate	Moderate	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-15	View from Hoford Road Protected Lane. Also represents views from footpath FP64 (LLCA West Tilbury Urban Fringe). View centred north-north-east for recreational receptors.	Moderate	Moderate	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-16	View from footpath 41/access track near Butts Lane (LLCA Linford/Buckingham Hill Urban Fringe). View centred south-south-west for recreational receptors.	Moderate	Moderate	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Sensitivity: No change from 2020. Construction Magnitude of effect: Due to the distance of both OHL works and construction activity associated with the Project route and the presence of existing OHL in the landscape, the change in views has been assessed as barely noticeable rather than perceptible (refer to criteria in Table

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020. Opening year winter Magnitude of effect and significance of effect: The distance of views and the presence of intervening features would result in no discernible change in views towards the Project and therefore a neutral effect. Design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-17	View from footpath 45 located within Orsett Golf Club (LLCA Linford/Buckingham Hill Urban Fringe). View centred south-south-east for recreational receptors.	Moderate	Moderate	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: <i>Moderate</i> Significance of effect: <i>Moderate beneficial</i> effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Design year summer Magnitude of effect: Established mitigation planting within the nitrogen deposition compensation site would screen views towards the Project, OHL and nearby mineral workings. The change in views has therefore been assessed as noticeably beneficial rather than perceptibly adverse (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										Significance of effect: The combination of moderate sensitivity and moderate magnitude of effect would result in a moderate beneficial effect due to the screening provided by mitigation planting.
N-18	View from footpath 78 on the north-east edge of Chadwell St Mary (LLCA White Croft/Orsett Heath Urban Fringe). View centred north-north-east for recreational receptors.	High	Moderate	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Sensitivity: Recreational receptors using local routes opposed to long distance routes have been assessed as moderate sensitivity, as indicated by DMRB LA107 Landscape and Visual Effects. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-19	View from residential properties at Orsett Heath/Chadwell St Mary (LLCA White Croft/Orsett Heath Urban Fringe). Viewpoint centred north-north-east for residential receptors.	High	High	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-20	View from Hornsby Lane adjacent to Heath Place (Grade II listed building) (LLCA White Croft/Orsett Heath Urban Fringe). View centred west-south-	Moderate	Moderate	Magnitude of effect: Major	Magnitude of effect: Major	Magnitude of effect: Moderate	Magnitude of effect: Major	Magnitude of effect: Moderate	Magnitude of effect: Moderate	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: The significance of effect has been

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	west for users of the local road.			Significance of effect: Moderate adverse effect	Significance of effect: <i>Large</i> adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: <i>Large</i> adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	assessed as large rather than moderate due to construction works being apparent across a large proportion of the view. Opening year winter Magnitude of effect: New false cutting earthworks, vehicles and highway infrastructure along the Project route and elevated bridge and viaduct structures at the A13/A1089/A122 Lower Thames Crossing junction would be prominent in views. The change in views has therefore been assessed as dominant rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of moderate sensitivity and major magnitude of effect would result in a large adverse effect due to the Project appearing across a large proportion of the view. Design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-21	View from the junction of Hornsby Lane/A1013 Stanford Road (LLCA White Croft/Orsett Heath Urban Fringe). View centred south-south-west for users of the local road.	Moderate	Moderate	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-22	View from A1013 Stanford Road on the A1089 overbridge	Low	Low	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Magnitude of effect:	Sensitivity: No change from 2020. Construction

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	(northern side) (LLCA White Croft/Orsett Heath Urban Fringe). View centred north-east for users of the main road.			Major Significance of effect: Moderate adverse effect	Major Significance of effect: Moderate adverse effect	Major Significance of effect: Moderate adverse effect	Major Significance of effect: Moderate adverse effect	Moderate Significance of effect: Slight adverse effect	Moderate Significance of effect: Slight adverse effect	<p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>
N-23	View from Grays urban edge (off Long Lane) (LLCA White Croft/Orsett Heath Urban Fringe). View centred east-north-east for residential receptors.	High	High	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: <i>Slight</i> adverse effect</p>	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Design year summer</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight adverse effect due to the Project being viewed in the context of OHL.</p>
N-24	View from residential properties on B188 Baker Street (LLCA Orsett Lowland Farmland). View looking south-south-east for residential receptors.	High	High	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Major</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: <i>Major</i></p> <p>Significance of effect: <i>Large</i> adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: <i>Moderate</i></p> <p>Significance of effect: <i>Moderate</i> adverse effect</p>	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter</p> <p>Magnitude of effect: The elevated Project road southbound to A13 eastbound slip road would be</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>prominent across the view. The change in views has therefore been assessed as dominant rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of high sensitivity and major magnitude of effect would result in a large adverse effect due to the Project being viewed in the context of the existing highway corridor.</p> <p>Design year summer</p> <p>Magnitude of effect: Established mitigation planting would provide some screening of the Project; however, part of the elevated Project road southbound to A13 eastbound slip road would remain visible in front of the A13 corridor. The change in views has therefore been assessed as noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of high sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to the Project being viewed in the context of the existing highway corridor.</p>
N-25	View from the intersection of footpath 93, footpath 96 and bridleway 206, off Mill Lane, on southern urban edge of Orsett. Also represents views from footpaths 82 and 94 (LLCA Orsett Lowland Farmland). View centred south-west for recreational receptors.	Moderate	Moderate	Magnitude of effect: Major	Magnitude of effect: Major	Magnitude of effect: Moderate	Magnitude of effect: Moderate	Magnitude of effect: Minor	Magnitude of effect: Minor	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										Significance of effect: No change from 2020.
N-26	View from Stifford Clays Road (LLCA Orsett Lowland Farmland). View centred north-west for users of the local road.	High	Moderate	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Sensitivity: Transient views from local/regional routes are considered to be of moderate sensitivity in DMRB LA107 Landscape and Visual Effects. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-27	View from bridleway 161 adjacent to junction of Green Lane/Stifford Clays Road (LLCA Orsett Lowland Farmland). View centred north-north-east for recreational receptors.	Moderate	Moderate	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: Although construction works associated with the Project route would extend across the view, they would predominantly be in the midground and distance and viewed in the context of prominent OHL. The change in views has therefore been assessed as noticeable rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of moderate sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to construction works being viewed in the context of prominent OHL. Opening year winter and design year summer Magnitude of effect: No change from 2020.

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										Significance of effect: No change from 2020.
N-28	View from footpath 90 at the junction of Green Lane/Fen Lane (LLCA Thurrock Reclaimed Fen (sub area Mardyke)). View centred south-west for recreational receptors.	Moderate	Moderate	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: <i>Major</i> Significance of effect: <i>Large</i> adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: <i>Moderate</i> Significance of effect: <i>Moderate</i> adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: <i>Moderate</i> Significance of effect: <i>Moderate</i> adverse effect	<p>Significance of effect: No change from 2020.</p> <p>Construction Magnitude of effect: Construction works for Green Lane green bridge would be prominent in views, with construction activity for the Project route extending across the view. The change in views has therefore been assessed as dominant rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of moderate sensitivity and major magnitude of effect would result in a large adverse effect due to construction works being apparent across a large proportion of the view.</p> <p>Opening year winter Magnitude of effect: The Green Lane green bridge and associated approach embankments and the landscape mound along the Project route would be noticeable above the skyline of views rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of moderate sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to elements of the Project remaining visible across the view.</p> <p>Design year summer Magnitude of effect: Established mitigation planting would provide some screening of the Project; however, the Green Lane green bridge and associated approach embankments and the landscape mound along the Project route would</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										be noticeable above the skyline of views rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of moderate sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to elements of the Project remaining visible across the view.
N-29	View from bridleway 219 located on the Mardyke Way, east of Grangewaters Outdoor Education Centre (LLCA Thurrock Reclaimed Fen (sub area Mardyke)). View centred east-north-east for recreational receptors.	High	High	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: <i>Minor</i> Significance of effect: <i>Slight</i> adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: Views of the Project would be long-range in nature and partially obscured by intervening features. The change in views has therefore been assessed as perceptible rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of high sensitivity and minor magnitude of effect would result in a slight adverse effect due to existing vegetation limiting the overall effect on the view. Design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-29a	View from bridleway 219 located on the Mardyke Way on Orsett Fen, open access land (LLCA Thurrock Reclaimed Fen (sub area Mardyke)).	High	High	Magnitude of effect: Major	Magnitude of effect: Major	Magnitude of effect: Major	Magnitude of effect: Major	Magnitude of effect: Major	Magnitude of effect: Major	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020.

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	View centred east-north-east for recreational receptors.			Significance of effect: Very large adverse effect	Significance of effect: Very large adverse effect	Significance of effect: Very large adverse effect	Significance of effect: Very large adverse effect	Significance of effect: Very large adverse effect	Significance of effect: Very large adverse effect	Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-30	View from footpath 132 near South Ockendon urban fringe (off Mollands Lane) (LLCA Belhus Lowland Quarry Farmland). View centred north-north-east for recreational receptors.	Moderate	Moderate	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Neutral effect	Magnitude of effect: <i>No change</i> Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect and significance of effect: The distance of views and the presence of intervening features would result in no discernible change in views towards the Project and therefore a neutral effect. Design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-31	View from footpath 90 on Orsett Fen (east of Hobletts residential property) (LLCA Thurrock Reclaimed Fen (sub area Mardyke)). View centred west for recreational receptors.	Moderate	Moderate	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: <i>Moderate</i> Significance of effect: <i>Moderate</i> adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: <i>Moderate</i> Significance of effect: <i>Moderate</i> adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: Construction works associated with the Project route would be in the midground and seen in the context of OHL. The change in views has therefore been assessed as noticeable rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of moderate sensitivity and moderate magnitude of effect would result in a moderate adverse

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										effect due to construction works being viewed in the midground. Opening year winter Magnitude of effect: The Project route embankments, Orsett Fen and Mardyke Viaducts, and associated vehicles and highway infrastructure have been assessed as noticeable rather than dominant in views (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects), due to being viewed in the midground and due to the partial screening provided by intervening vegetation at Hobletts residential property and along field boundaries. Significance of effect: The combination of moderate sensitivity and moderate magnitude of effect would result in a moderate adverse effect due to the mid-range, partially obscured nature of views. Design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-32	View from bridleway 219 located on the Mardyke Way on Orsett Fen (LLCA Thurrock Reclaimed Fen (sub area Mardyke)). View centred north-east for recreational receptors.	High	High	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Magnitude of effect: Major Significance of effect: Very large adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-33	View from intersection of footpaths 89 and 90 at Bulphan Fen (off Harrow Lane). Also represents	Moderate	Moderate	Magnitude of effect: Moderate	Magnitude of effect: Moderate	Magnitude of effect: Moderate	Magnitude of effect: Minor	Magnitude of effect: Minor	Magnitude of effect: Negligible	Sensitivity: No change from 2020. Construction

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	views from footpath 159 (LLCA Thurrock Reclaimed Fen (sub area Mardyke)). View centred south-west for recreational receptors.			Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: Moderate adverse effect	Significance of effect: <i>Slight</i> adverse effect	Significance of effect: Slight adverse effect	Significance of effect: Slight adverse effect	<p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter</p> <p>Magnitude of effect: Views of the Project would be long-range in nature and partially obscured by intervening features. The change in views has therefore been assessed as perceptible rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of moderate sensitivity and minor magnitude of effect would result in a slight adverse effect due to existing vegetation limiting the overall effect on the view.</p> <p>Design year summer</p> <p>Magnitude of effect: Established mitigation planting along the Project route would further restrict visibility of earthworks and structures. The change in views has therefore been assessed as barely noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: No change from 2020.</p>
N-34	View from footpath 160 on the western edge of Bulphan (LLCA Thurrock Reclaimed Fen (sub area Mardyke)). View centred south-west for recreational receptors.	Moderate	Moderate	Magnitude of effect: Negligible	Magnitude of effect: Negligible	Magnitude of effect: No change	Magnitude of effect: No change	Magnitude of effect: No change	Magnitude of effect: No change	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect: No change from 2020.</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										Significance of effect: No change from 2020.
N-35	View from footpath 136 located on Hall Lane, west of South Ockendon Hall (LLCA Belhus Lowland Quarry Farmland). View centred north-north-east for recreational receptors.	Moderate	Moderate	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: <i>Minor</i> Significance of effect: <i>Slight</i> adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Significance of effect: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: The Project carriageway and associated vehicles and highway infrastructure would largely be screened within cutting, with North Road green bridge slightly elevated above the surrounding landscape. The change in views has therefore been assessed as perceptible rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of moderate sensitivity and minor magnitude of effect would result in a slight adverse effect due to much of the view remaining largely similar in nature to the existing situation. Design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-36	View from footpath 135 off B186 North Road (LLCA Belhus Lowland Quarry Farmland). View centred south-south-east for recreational receptors.	Moderate	Moderate	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Moderate adverse effect	Magnitude of effect: <i>Moderate</i> Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Significance of effect: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: The Project carriageway and associated vehicles

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										and highway infrastructure would largely be screened within cutting, although North Road green bridge would be visible in part of the view. The change in views has therefore been assessed as noticeable rather than dominant (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020 Design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-37	View from South Ockendon (West Road) (LLCA Belhus Lowland Quarry Farmland). View centred north for users of main road.	Low	Low	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-38	View from intersection of footpaths 253 and 254 in North Ockendon Conservation Area. Also represents views from footpath 252 (LLCA Belhus Lowland Quarry Farmland). View centred south-south-west for recreational receptors.	Moderate	Moderate	Magnitude of effect: Major Significance of effect: Moderate adverse effect	Magnitude of effect: Major Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Neutral effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Design year summer Magnitude of effect: No change from 2020. Significance of effect: The combination of moderate sensitivity and minor magnitude of effect would result in a slight adverse effect due to parts of the Project remaining visible, including the FP252 WCH bridge east and false cutting earthworks and highway infrastructure along the Project route.</p>
N-39	View from footpath 231 near St Mary Magdalene Church, in North Ockendon Conservation Area (LLCA Belhus Lowland Quarry Farmland). View centred west for recreational receptors.	High	Moderate	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Large adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Negligible</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Sensitivity: Recreational receptors using local routes opposed to long distance routes have been assessed as moderate sensitivity, as indicated by DMRB LA107 Landscape and Visual Effects.</p> <p>Construction Magnitude of effect: No change from 2020. Significance of effect: The change in significance of effect is due to the change in the sensitivity of the visual receptor.</p> <p>Opening year winter Magnitude of effect: Increased visibility of highway infrastructure along the M25 corridor and the presence of the new landscape mound west of the M25 corridor would be noticeable rather than perceptible in views (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020.</p> <p>Design year summer Magnitude of effect: Filtered views would remain towards Ockendon Road overbridge and moving vehicles along the M25 to Project road southbound slip road. The change in views has therefore been assessed</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) Red text denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) Red text denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										as perceptible rather than barely noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020.
N-40	View from intersection of B186 Ockendon Road and B1421 Ockendon Road, east of North Ockendon (LLCA Belhus Lowland Quarry Farmland). View centred south-west for users of local road.	Low	Moderate	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	Sensitivity: Transient views from local/regional routes are considered to be of moderate sensitivity in DMRB LA107 Landscape and Visual Effects. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-41	View from adjacent to residential properties, including Cranham Place on B1421, Ockendon Road (LLCA Belhus Lowland Quarry Farmland). View centred south for residential receptors.	Moderate	Moderate	Magnitude of effect: Major Significance of effect: Moderate adverse effect	Magnitude of effect: Major Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-42	View from permissive path within Thames Chase Forest Centre (LLCA Thurrock Reclaimed Fen (sub area Thames Chase)). View centred south-east for recreational receptors.	High	High	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Major Significance of effect: Large adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Magnitude of effect: Moderate Significance of effect: Moderate adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction)		Magnitude of effect and significance of effect (opening year winter)		Magnitude of effect and significance of effect (design year summer)		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>
N-43	View from Cranham Brickfields public open space and footpath 193 on the eastern edge of Upminster (LLCA Thurrock Reclaimed Fen (sub area Thames Chase)). View centred east for recreational receptors.	High	Moderate	<p>Magnitude of effect: Moderate</p> <p>Significance of effect: Moderate adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect: Slight adverse effect</p>	<p>Magnitude of effect: No change</p> <p>Significance of effect: Neutral effect</p>	<p>Sensitivity: There are glimpses of traffic and highway infrastructure along the existing M25 corridor in existing views from this location. The sensitivity has therefore been reduced to take account of the visibility of the existing M25 corridor.</p> <p>Construction</p> <p>Magnitude of effect: Construction works along the M25 corridor would largely be obscured by intervening features. Therefore, the change in views has been assessed as perceptible rather than noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: The combination of moderate sensitivity and minor magnitude of effect would result in a slight adverse effect due to the limited extent of construction works visible, seen in the context of the existing M25 corridor.</p> <p>Opening year winter and design year summer</p> <p>Magnitude of effect and significance of effect: The distance of views and the presence of intervening features would result in no discernible change in views towards the Project and therefore a neutral effect.</p>
N-44	View from Public Right of Way (PRoW) 272_110 within Thames Chase (Brentwood) (LLCA Brentwood Wooded Hills). View centred	Moderate	Moderate	<p>Magnitude of effect: Minor</p> <p>Significance of effect:</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect:</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect:</p>	<p>Magnitude of effect: Negligible</p> <p>Significance of effect:</p>	<p>Magnitude of effect: Negligible</p> <p>Significance of effect:</p>	<p>Magnitude of effect: Minor</p> <p>Significance of effect:</p>	<p>Sensitivity: No change from 2020.</p> <p>Construction</p> <p>Magnitude of effect: No change from 2020.</p> <p>Significance of effect: No change from 2020.</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
	south-east for recreational receptors.			Slight adverse effect	Slight adverse effect	Slight adverse effect	Slight adverse effect	Neutral effect	<i>Slight adverse effect</i>	<p>Opening year winter Magnitude of effect: There would be slightly more open views to the M25 corridor, although vehicle movements and highway infrastructure would not appear notably different to the existing view. The change in views has therefore been assessed as barely noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020. Design year summer Magnitude of effect: The partial foreshortening of views resulting from ancient woodland compensation planting, except for the vista incorporated into the planting design, would mean the Project would be perceptible rather than barely noticeable (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: The combination of moderate sensitivity and minor magnitude of effect would result in a slight adverse effect due to the partial foreshortening of views.</p>
N-45	View from Bird Lane to the west of Little Warley (LLCA Brentwood Wooded Hills). View centred south-west for users of the local road.	Moderate	Moderate	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: Negligible Significance of effect: Slight adverse effect	Magnitude of effect: <i>No change</i> Significance of effect: <i>Neutral effect</i>	Magnitude of effect: No change Significance of effect: Neutral effect	Magnitude of effect: No change Significance of effect: Neutral effect	<p>Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter Magnitude of effect and significance of effect: The distance of views and the presence of intervening features would result in no discernible change in views towards</p>

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										the Project and therefore a neutral effect. Design year summer Magnitude of effect: No change from 2020. Significance of effect: No change from 2020.
N-46	View from southern edge of Thorndon Country Park (LLCA Brentwood Wooded Hills) and PRoW 272_130. View looking south-west for recreational receptors.	High	High	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: <i>Negligible</i> Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: <i>Negligible</i> Significance of effect: Slight adverse effect	Sensitivity: No change from 2020. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer Magnitude of effect: The Project would appear as minor additions to the distant, wide view and would not change the overall composition of the existing view. The change in view has therefore been assessed as barely noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects). Significance of effect: No change from 2020.
N-47	View from South Hill, within the Langdon Hills Country Park (LLCA Langdon Hills and Farmland). View looking south-west for recreational receptors.	Moderate	<i>High</i>	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: <i>Negligible</i> Significance of effect: Slight adverse effect	Magnitude of effect: Minor Significance of effect: Slight adverse effect	Magnitude of effect: <i>Negligible</i> Significance of effect: Slight adverse effect	Sensitivity: 'Views by users of public open spaces for enjoyment of the countryside (e.g. country parks)' are considered to be of high sensitivity in DMRB LA107 Landscape and Visual Effects. Construction Magnitude of effect: No change from 2020. Significance of effect: No change from 2020. Opening year winter and design year summer

Visual receptor		Sensitivity		Magnitude of effect and significance of effect (construction) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (opening year winter) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Magnitude of effect and significance of effect (design year summer) <i>Red text</i> denotes difference between 2020 and 2022 visual impact assessments		Commentary
		2020	2022	2020	2022	2020	2022	2020	2022	
										<p>Magnitude of effect: The Project would appear as minor additions to the distant, wide view and would not change the overall composition of the existing view. The change in view has therefore been assessed as barely noticeable rather than perceptible (refer to criteria in Table 3.43 of DMRB LA107 Landscape and Visual Effects).</p> <p>Significance of effect: No change from 2020.</p>

Annex C Review of photomontages

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
South of the River Thames		
S-05a	Contrary to what is shown on the year 1 photomontage, Brewers Road green bridge embankment would not be visible, as it would be screened by retained vegetation.	Brewers Road green bridge embankment has not been considered as a visible element within ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Existing vegetation appears to incorrectly cross over the carriageway of Park Pale on the year 1 photomontage.	This section of Park Pale has not been considered as a visible element within ES Appendix 7.10 due to the retention of existing vegetation (see comment below) and there would therefore be no change to the visual impact assessment.
	Existing vegetation is missing from the year 1 and year 15 photomontages between Park Pale and the A2 corridor.	More of Park Pale would be obscured by existing vegetation at year 1, with further screening provided at year 15. However, the western end of Park Pale has not been considered as a visible element within ES Appendix 7.10 due to the presence of intervening vegetation and there would therefore be no change to the visual impact assessment.
	Gantry road signs slightly misaligned with the carriageway beneath on the year 1 and year 15 photomontages.	If the gantry sign was extended further north above the inside lane, then the gantry would appear slightly more prominent. However, prominent highway infrastructure has already been taken into account in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Summary for photomontage S-05a: Minor discrepancies	Effect on assessment: No change
S-12	Existing vegetation is missing from the year 1 and year 15 photomontages within the grounds of The Nook Pet Hotel on Brewers Road, at Cobham	The tops of lighting columns along the A2 corridor would be more obscured by intervening vegetation. However, this would not result in a change to the visual impact assessment, as ES Appendix 7.10 has taken into account

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
	Hall Registered Park and Garden and along Brewers Road to the south.	increased visibility of lighting columns to the south-west due to vegetation loss.
	Hedgerow and transplant planting along Brewers Road green bridge is shown taller on the photomontage than is likely at year 1.	The mitigating effect of proposed planting has not been taken into account in the year 1 assessment in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Summary for photomontage S-12: Minor discrepancies	Effect on assessment: No change
S-13	Existing vegetation within Cobham Hall Registered Park and Garden and along Brewers Road is shown taller on the year 1 and year 15 photomontages than on the baseline photograph.	Proposed lighting columns along Brewers Road green bridge may be more apparent if backdropped by less existing vegetation. However, ES Appendix 7.10 has assessed the presence of the lighting columns in the context of the existing vegetation backdrop rather than the backdrop shown on the photomontages and there would therefore be no change to the visual impact assessment.
	Hedgerow and transplant planting along Brewers Road green bridge is shown taller on the photomontage than is likely at year 1.	The mitigating effect of proposed planting has not been taken into account in the year 1 assessment in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Summary for photomontage S-13: Minor discrepancies	Effect on assessment: No change
S-14	Hedgerow planting along Brewers Road green bridge is shown taller on the photomontage than is likely at year 1.	The mitigating effect of proposed planting has not been taken into account in the year 1 assessment in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	A lighting column is shown in the middle of the footpath on the year 15 photomontage rather than at the rear of the footpath.	The location of the lighting column in the footpath would not change the visual impact assessment within ES Appendix 7.10.

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
	Summary for photomontage S-14: Minor discrepancies	Effect on assessment: No change
S-17	Retained vegetation south of the A2 corridor is shown closer to the viewer on sheet 1 of the year 1 photomontage than it would be along the HS1 corridor.	Lighting columns along the A2 corridor may be more apparent if backdropped by more distant vegetation. However, this would not result in a change to the visual impact assessment, as ES Appendix 7.10 has taken into account the extensive loss of vegetation south of the A2 corridor and the change in the wooded backdrop to views.
	Hedgerow planting on Thong Lane green bridge south is shown taller on the photomontage than is likely at year 1.	The mitigating effect of proposed planting has not been taken into account in the year 1 assessment in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	The fence and embankment at Thong Lane green bridge south are shown slightly differently in the year 1 and year 15 photomontages.	The appearance of the fence and embankment is a detailed design issue that would not increase or reduce effects on views.
	Summary for photomontage S-17: Minor discrepancies	Effect on assessment: No change
S-18	Existing vegetation is incorrectly shown retained on the year 1 photomontage beyond the Thong Lane green bridge south structure.	Lighting columns along Thong Lane green bridge south may be more apparent if backdropped by less existing vegetation. However, this would not result in a change to the visual impact assessment, as ES Appendix 7.10 has taken into account the extensive loss of vegetation across the wider view.
	Hedgerow planting along the south of the A2 corridor and Thong Lane green bridge south is shown taller on the photomontage than is likely at year 1.	The mitigating effect of proposed planting has not been taken into account in the year 1 assessment in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	North of the A2 corridor, the embankment could be shown to tie in better with Thong Lane green	The appearance of the embankment is a detailed design issue that would not increase or reduce effects on views.

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
	<p>bridge south on the year 1 photomontage, as part of the grass slope appears to be missing.</p> <p>Summary for photomontage S-18: Minor discrepancies</p>	<p>Effect on assessment: No change</p>
S-20a	<p>There would be slightly less existing vegetation retained at the base of the pylon than is shown on the year 1 and year 15 photomontages.</p>	<p>More highway infrastructure would be visible along the A2 corridor where vegetation removal is proposed. However, the visibility of new gantries and replacement street lighting along the A2 corridor has been taken into account in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.</p>
	<p>Some existing woodland is missing in the background within Shorne Woods Country Park, north of the A2 corridor, in the year 1 and year 15 photomontages.</p>	<p>The change in the wooded backdrop to views would be less notable if this woodland was shown retained. ES Appendix 7.10 already notes that new road elements, street lighting and vehicle movements would be viewed against this wooded backdrop and there would therefore be no change to the visual impact assessment.</p>
	<p>Proposed lighting columns are missing along Thong Lane green bridge south in the year 1 and year 15 photomontages.</p>	<p>Additional highway infrastructure would be apparent in views. However, when viewed against the wooded backdrop as stated in ES Appendix 7.10, the additional highway infrastructure would not be prominent. There would therefore be no change to the visual impact assessment.</p>
	<p>Existing HS1 infrastructure is missing south of the A2 corridor in the year 1 and year 15 photomontages.</p>	<p>New gantries and replacement street lighting along the A2 corridor would appear in the context of HS1 infrastructure. The appearance of the Project in the context of existing features such as overhead lines (OHL) and HS1 infrastructure has been taken into account in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.</p>
	<p>Summary for photomontage S-20a: Minor discrepancies</p>	<p>Effect on assessment: No change</p>

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
S-22	The appearance of the Gravesend East junction link road north of the A2 corridor requires refinement on the year 1 photomontage, including more accurately reflecting the alignment of the carriageway and omitting the planting shown within the hard surface area.	The presence of the Gravesend East junction link road and associated traffic and highway infrastructure has been taken into account in ES Appendix 7.10 as part of the wider M2/A2/A122 Lower Thames Crossing junction and there would therefore be no change to the visual impact assessment.
	Garden boundaries of houses at Sheldon Heights are missing from the year 1 and year 15 photomontages.	Garden boundaries could partially obscure the base of the new pylon. However, most of the pylon would remain visible and there would therefore be no change to the visual impact assessment within ES Appendix 7.10, which takes into account the visibility of the new pylon.
	Houses at 1 and 2 Long View and existing vegetation along Henhurst Road, south of the A2 corridor, are incorrectly shown retained in the year 1 photomontage.	The removal of these elements would increase the open nature of views along the A2 corridor. However, this would not result in a change to the visual impact assessment, as ES Appendix 7.10 has taken into account the loss of vegetation along the A2 corridor.
	Summary for photomontage S-22: Minor discrepancies	Effect on assessment: No change
S-28	Retained woodland is missing on the grass slope in the background of sheet 1 of the year 1 photomontage.	The change in views would be less notable if this woodland backdrop was shown retained. However, this would not result in a change to the visual impact assessment, as ES Appendix 7.10 has taken into account the wooded backdrop remaining visible above the Project route cutting.
	A building at Baylis Landscapes and a hedgerow at Hartshill Bungalow are incorrectly shown retained in sheet 1 of the year 1 photomontage.	The removal of these elements would increase visibility of woodland within Shorne Woods Country Park. However, this would not comprise a prominent change in the view when considered in the wider context of the new M2/A2/A122 Lower Thames Crossing junction and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
	The appearance of grass slopes at the M2/A2/A122 Lower Thames Crossing junction could be improved in sheet 2 of the year 1 photomontage, as some areas of grass appear overly steep and do not correctly tie in with proposed structures.	The appearance of the grass slopes is a detailed design issue that would not change the overall visual impact of the M2/A2/A122 Lower Thames Crossing junction.
	The existing A2 service station is incorrectly shown retained in sheet 2 of the year 1 photomontage.	The removal of this visually detracting element would not change the nature of views towards the M2/A2/A122 Lower Thames Crossing junction, as intervening trees within Claylane Wood would continue to obscure views beyond, and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.
	An existing pylon is incorrectly shown retained in sheet 1 of the year 15 photomontage.	The removal of the pylon would declutter views. However, there would not be a change to the visual impact assessment, as the removal of this pylon is already taken into account in ES Appendix 7.10.
	Summary for photomontage S-28: Minor discrepancies	Effect on assessment: No change
S-30	Some proposed footpaths are missing from the year 1 and year 15 photomontages south of Thong Lane green bridge north.	The proposed footpaths would replace areas of grass shown on the photomontage. This would not comprise a notable change in the view and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.
	The proposed standard highway boundary fence at the top of the Project route cutting is shown incorrectly in the year 1 photomontage as a close board fence.	The standard highway boundary fence would be less apparent in the view than the close board fence. ES Appendix 7.10 has assessed the Project with a standard highway boundary fence in this location and there would therefore be no change to the visual impact assessment.
	The existing mast near Inn on the Lake is missing from the year 1 and year 15 photomontages.	The presence of the mast in the photomontages would provide additional context and would not significantly detract from the existing view. It would

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
		also not alter the appearance of the Project in views and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.
	Existing buildings, vegetation and garden boundaries at the Thong Lane/ Shorne Ifield Road junction are missing in the background of the year 1 photomontage.	The presence of these elements in the year 1 photomontage would provide additional context. However, they would not alter the appearance of the Project in views and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.
	Summary for photomontage S-30: Minor discrepancies	Effect on assessment: No change
S-31	Existing pylons are missing from the background of the year 1 photomontage.	ES Appendix 7.10 already assesses the South Portal approach road cutting in the context of existing and modified OHL and there would therefore be no change to the visual impact assessment.
	An established grass sward is shown instead of chalk substrate along the upper slopes of the South Portal approach road cutting in the year 1 photomontage.	The appearance of the chalk substrate along the upper slopes of the South Portal approach road cutting has been taken into account in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Summary for photomontage S-31: Minor discrepancies	Effect on assessment: No change
North of the River Thames		
N-02	The proposed planting shown on the new embankments along the Project route and around the North Portal operational access bridge in the year 1 photomontage is overly mature in appearance.	The mitigating effect of proposed planting has not been taken into account in the year 1 assessment in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
	The new embankments along the Project route and around the North Portal operational access bridge appear slightly taller in the year 15 photomontage compared to the year 1 photomontage.	The worst case embankment height has been taken into account in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Part of the roof to the retained building at Walnut Tree Farm south of Station Road is incorrectly shown missing at year 1.	Adding the missing part of the roof would not alter the appearance of the Project in views and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.
	One pylon is shown removed in the year 15 photomontage but incorrectly shown retained in the year 1 photomontage.	The appearance of existing and modified OHL has been taken into account in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Summary for photomontage N-02: Minor discrepancies	Effect on assessment: No change
N-07	No replacement planting has been shown along Station Road in the year 15 photomontage.	Replacement planting along Station Road would filter views towards the Project route to the south-west. ES Appendix 7.10 has taken into account replacement planting along Station Road at year 15 and there would therefore be no change to the visual impact assessment.
	A new pylon is shown on sheet 1 of the year 1 photomontage that is not shown on the year 15 photomontage.	The appearance of existing and modified OHL has been taken into account in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Existing vegetation is incorrectly shown retained on the year 1 and year 15 photomontages along foreground field boundaries and the Tilbury Loop railway line.	The removal of this vegetation would result in more open views of Tilbury Viaduct. ES Appendix 7.10 has taken into account this vegetation removal and the visibility of Tilbury Viaduct and associated traffic and there would therefore be no change to the visual impact assessment.
	A close board fence has been incorrectly shown along the edge of Tilbury Viaduct in the year 1	A concrete finish would be visually more in keeping with the main viaduct structure. However, the assessment in ES Appendix 7.10 has assumed the

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
	and year 15 photomontages rather than a concrete acoustic barrier.	provision of a concrete acoustic barrier and there would therefore be no change to the visual impact assessment.
	Summary for photomontage N-07: Minor discrepancies	Effect on assessment: No change
N-08	Some grass areas are missing in the year 1 photomontage and the modified irrigation reservoir is missing in the year 15 photomontage.	These additions would not comprise notable changes in the view and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.
	A close board fence has been incorrectly shown along the edge of Tilbury Viaduct in the year 1 and year 15 photomontages rather than a concrete acoustic barrier.	A concrete finish would be visually more in keeping with the main viaduct structure. However, the assessment in ES Appendix 7.10 has assumed the provision of a concrete acoustic barrier and there would therefore be no change to the visual impact assessment.
	A proposed footpath is missing beneath Tilbury Viaduct in the year 1 and year 15 photomontages.	The proposed footpath would replace areas of grass shown on the photomontages. This would not comprise a notable change in the view and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.
	Existing vegetation is incorrectly shown retained along the boundary of the small industrial area off Station Road adjacent to the Tilbury Loop railway line in the year 1 photomontage.	The removal of this vegetation would result in more open views of the small industrial area beyond. However, there would not be a change to the visual impact assessment, as the removal of vegetation has been taken into account in ES Appendix 7.10.
	Summary for photomontage N-08: Minor discrepancies	Effect on assessment: No change
N-12	A close board fence has been incorrectly shown along the edge of Tilbury Viaduct in the year 1 and year 15 photomontages rather than a concrete acoustic barrier.	A concrete finish would be visually more in keeping with the main viaduct structure. However, the assessment in ES Appendix 7.10 has assumed the provision of a concrete acoustic barrier and there would therefore be no change to the visual impact assessment.

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
	The proposed footpath is shown to be more visually prominent than would be the case in the year 1 and year 15 photomontages and it would follow the existing field boundary in the midground.	The proposed footpath would integrate into the existing landscape better. However, there would be no change to the visual impact assessment, as ES Appendix 7.10 has considered the intended alignment and design of the proposed footpath.
	Some existing vegetation is incorrectly shown retained along the Tilbury Loop railway line in the year 1 and year 15 photomontages.	The removal of this vegetation would result in more open views of the northern part of Tilbury Viaduct. ES Appendix 7.10 has taken into account this vegetation removal and the visibility of Tilbury Viaduct and there would therefore be no change to the visual impact assessment.
	Some existing vegetation is incorrectly shown retained in the year 15 photomontage.	The retention of this vegetation in the year 15 photomontage indicates views of OHL beyond would be filtered. However, ES Appendix 7.10 has taken account of vegetation removal at both year 1 and year 15 and there would therefore be no change to the visual impact assessment.
	Three pylons are incorrectly shown in front of rather than behind the new false cutting slopes along the Project route in the year 1 photomontage and one pylon is shown retained in the year 1 photomontage but replaced in the year 15 photomontage.	The appearance of existing and modified OHL has been taken into account in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Summary for photomontage N-12: Minor discrepancies	Effect on assessment: No change
N-17	Some existing vegetation is incorrectly shown retained along Hoford Road in sheet 2 of the year 1 and year 15 photomontages.	The removal of this vegetation would result in more open views of Hoford Road, noting that this road is closed to traffic. There would not be a change to the visual impact assessment, as the removal of vegetation has been taken into account in ES Appendix 7.10.

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
	Summary for photomontage N-17: Minor discrepancies	Effect on assessment: No change
N-19	Too many standard trees are shown within the hedgerows along the edge of the false cutting earthworks along the Project route in both the year 1 and year 15 photomontages.	The standard trees indicate a greater level of screening than is likely. However, there would not be a change to the visual impact assessment, as ES Appendix 7.10 has assumed greater spacing between standard trees and consequent visibility of high-sided vehicles and gantries along the Project route.
	Some existing vegetation is incorrectly shown retained along Hornsby Lane in the year 1 and year 15 photomontages.	The removal of this vegetation would result in slightly less filtered views of occasional vehicles using Hornsby Lane. However, ES Appendix 7.10 has taken this vegetation removal into account and there would therefore be no change to the visual impact.
	Existing vegetation and buildings at The Whitcroft care home are missing in the year 1 and year 15 photomontages.	The retention of these elements in the photomontages would provide additional context. However, they would not alter the appearance of the Project in views and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.
	Some residential properties and the existing A13 are incorrectly shown in front of rather than concealed by the new embankment along the Orsett Cock to A1089 slip road in the year 1 and year 15 photomontages.	The omission of these elements from the photomontages would result in greater visibility of the new embankment along the Orsett Cock to A1089 slip road. However, ES Appendix 7.10 has assumed that the new embankment would be in front of the existing properties and the A13 and there would therefore be no change to the visual impact assessment.
	Two pylons are incorrectly shown behind rather than in front of the false cutting slopes along the Project route on sheet 2 of the year 15 photomontage.	The appearance of existing and modified OHL has been taken into account in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Summary for photomontage N-19: Minor discrepancies	Effect on assessment: No change

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
N-23	Too many standard trees are shown within the hedgerows along nearby field boundaries in both the year 1 and year 15 photomontages.	The standard trees indicate a greater level of screening than is likely. However, there would not be a change to the visual impact assessment, as ES Appendix 7.10 has assumed greater spacing between standard trees and consequent visibility of new structures and earthworks at the A13/A1089/A122 Lower Thames Crossing junction.
	A close board fence has been incorrectly shown along the edge of the embankment in sheet 1 of the year 1 photomontage, rather than a standard highway boundary fence.	The standard highway boundary fence would be less apparent in the view than the close board fence. Conversely, the standard highway boundary fence would provide less screening of vehicles. ES Appendix 7.10 has assessed the Project with a standard highway boundary fence in this location and there would therefore be no change to the visual impact assessment.
	Two existing pylons are missing from sheet 1 of the year 1 photomontage.	The appearance of existing OHL has been taken into account in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Summary for photomontage N-23: Minor discrepancies	Effect on assessment: No change
N-25	The new Lower Thames Crossing to A13 eastbound slip road embankment near properties on Woolings Close differs in height between the year 1 and year 15 photomontages, with the year 15 photomontage better reflecting the Project design. This amended year 1 photomontage has been submitted at Deadline 4.	The worst case embankment height has been taken into account in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Some existing vegetation has been incorrectly shown removed in the fields in front of the new Lower Thames Crossing to A13 eastbound slip road embankment in the year 1 and year 15	Retention of this vegetation would provide additional filtering of the new Lower Thames Crossing to A13 eastbound slip road embankment. However, there would be no change to the visual impact assessment, as ES Appendix 7.10 has assumed the retention of this vegetation.

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
	photomontages. This has been amended on the year 1 photomontage submitted at Deadline 4.	
	A close board fence has been incorrectly shown along the edge of the Lower Thames Crossing to A13 eastbound slip road embankment in the year 1 and year 15 photomontages, rather than a standard highway boundary fence. This has been amended on the year 1 photomontage submitted at Deadline 4.	The standard highway boundary fence would be less apparent in the view than the close board fence. Conversely, the standard highway boundary fence would provide less screening of vehicles. ES Appendix 7.10 has assessed the Project with a standard highway boundary fence in this location and there would therefore be no change to the visual impact assessment.
	Summary for photomontage N-25: Minor discrepancies	Effect on assessment: No change
N-27	Too many standard trees are shown within the hedgerows along and at the base of Green Lane green bridge and along the Project route in both the year 1 and year 15 photomontages.	The standard trees indicate a greater level of screening than is likely. However, there would not be a change to the visual impact assessment, as ES Appendix 7.10 has assumed greater spacing between standard trees and consequent visibility of the new Green Lane green bridge.
	Carr woodland is missing at the northern end of Orsett Fen Viaduct in the year 15 photomontage.	Carr woodland would provide additional screening of the Orsett Fen Viaduct approach embankments. ES Appendix 7.10 has taken account of this woodland screening at year 15 and there would therefore be no change to the visual impact assessment.
	Summary for photomontage N-27: Minor discrepancies	Effect on assessment: No change
N-29a	A close board fence has been incorrectly shown along the edge of the Orsett Fen and Mardyke Viaducts in the year 1 and year 15 photomontages rather than a concrete acoustic barrier.	A concrete finish would be visually more in keeping with the main viaduct structure. However, the assessment in ES Appendix 7.10 has assumed the provision of a concrete acoustic barrier and there would therefore be no change to the visual impact assessment.

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
	The embankments could be shown to tie in better at the Orsett Fen and Mardyke Viaducts in the year 1 and year 15 photomontages, as some areas of grass appear overly steep and to not correctly tie in with proposed structures.	The appearance of the embankment is a detailed design issue that would not increase or reduce effects on views.
	The proposed footpath alignment shown on sheet 2 of the year 1 and year 15 photomontages is incorrectly shown to continue beneath Orsett Fen Viaduct rather than turn southward.	The modified footpath location would not comprise a notable change in the view and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.
	Summary for photomontage N-29a: Minor discrepancies	Effect on assessment: No change
N-39	Existing vegetation is incorrectly shown retained in the year 1 and year 15 photomontages west of residential properties along Ockendon Road.	The removal of this vegetation would result in slightly more open views of the M25 cutting slopes and landscape mound beyond. However, there would be no change to the visual impact assessment, as ES Appendix 7.10 has taken into account this vegetation removal.
	Proposed lighting columns along the M25 appear to sit in front of a new fence along the highway boundary on sheet 2 of the year 1 photomontage, instead of behind the fence.	The lighting columns would be slightly less visible beyond the proposed fence. This would not comprise a notable change in the view and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.
	Summary for photomontage N-39: Minor discrepancies	Effect on assessment: No change
N-42	Some background tree canopies are shown blurred on sheet 2 of the year 1 photomontage.	Sharper definition of the background tree canopies would not change the overall visual impact and there would therefore be no change to the visual impact assessment within ES Appendix 7.10.

Photomontage and Representative Viewpoint Number	Photomontage discrepancy identified by Applicant	Implication for visual impact assessment in ES Appendix 7.10
	Some proposed planting is missing on the new Project road embankment on sheet 2 of the year 1 photomontage.	The mitigating effect of proposed planting has not been taken into account in the year 1 assessment in ES Appendix 7.10 and there would therefore be no change to the visual impact assessment.
	Summary for photomontage N-42: Minor discrepancies	Effect on assessment: No change

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