



## Lower Thames Crossing

### Summary Review of Community Impacts Consultation

On behalf of **Thurrock Council**



Project Ref: 332510065 | Rev: C | Date: October 2021

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<b>FOR AND ON BEHALF OF STANTEC UK LIMITED</b>				

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# 1 Introduction

## 1.1 Introduction

- 1.1.1 Highways England (HE) will be re-applying for a Development Consent Order (DCO) to construct and operate the Lower Thames Crossing (LTC) which is approximately 14.3 miles (23 km) of new road connecting the existing road network from the A2/M2, south-east of Gravesend, to the M25, to the north of North Ockendon. The scheme incorporates two 2.6-mile (4.3 km) tunnels under the River Thames and associated modifications to the M25, A2 and A13, and free flowing charging systems. It should be noted that the LTC route (and its Order Limits) through Thurrock accounts for approximately 9% of the land area of the Borough and Thurrock would accommodate approximately three quarters (i.e. approximately 14 kms of its full 18.75kms) of the linear above-ground route (4.25kms is in tunnel).
- 1.1.2 The scheme is classified as a Nationally Significant Infrastructure Project (NSIP) therefore consent will be sought via a DCO under the Planning Act 2008 (PA 2008) and the Planning Inspectorate (PINS) will consider the application on behalf of the Secretary of State for Transport. HE's programme is to submit the DCO application in Autumn 2021.
- 1.1.3 At the end of 2018, HE presented its '*Statutory Consultation Scheme*' for the proposed LTC. A series of design changes was the subject of a Supplementary Consultation exercise which ended in April 2020 and then, a further round of Design Refinement was the subject of non-statutory consultation, undertaken virtually, from 14 July to 12 August 2020. HE made its submission of its first DCO (DCOV1) in October 2020 and subsequently, following discussions with PINS, withdrew DCOV1 application in November 2020. A further round of Community Impacts Consultation was held from 14 July to 8 September 2021. It was undertaken virtually and at in-person events in response to the Covid-19 pandemic and comments from PINS.
- 1.1.4 This report has been prepared for Thurrock Council (the Council) to provide a review of the material presented as part of the Community Impacts Consultation exercise. Its purpose is to identify areas of concern, potentially significant issues and identify areas of further work required to be carried out by HE in order to allow the scheme to be properly and proportionately assessed, prior to DCO re-submission.
- 1.1.5 Overall, the Council has continued actively to engage with HE. However, based upon the consultation materials available, the information presented by HE is protracted, repetitive, complex and often missing key data. It is not supported by evidence that is required for stakeholders, including the Council, to provide an informed response to the proposed design and the wider scheme. The assertions within the Ward Impact Summaries are often misleading by intimating that all impacts are to be mitigated by the proposals currently being put forward by HE. Progress by HE on the traffic modelling, air quality and noise assessments and environmental and health impact assessment work has continued to be slow. The result of this is that the Council's ability to engage with HE on the technical analysis of potential effects of the scheme has been relatively unproductive. Consequently, it has not been possible to appropriately evaluate the effectiveness of any mitigation proposals, prior to the planned submission of the DCO application later this year. The Council contend that, due to this lack of information, a fully informed consultation response is not possible, and it reserves its right to comment further once this vital information is both available and has been assessed.
- 1.1.6 This Summary Review of Community Impacts Consultation (Summary Review) sets out in summary all the Council's concerns. Accompanying this, are a series of technical Appendices that set out in greater detail the Council's response to: Draft technical 'control' documents; Summary comments on the Council's land interests; Summary Comments on HE's non statutory compensation policy; and Summary Comments on the HE review of utility diversion impacts for the additional utility NSIPs. All these documents have been reviewed by Council

officers and consultant specialists. Together they represent a summary of the Council's views on the consultation materials.

- 1.1.7 The Council's comments in the following Summary Review and Appendices have been restricted to the following three reasons to comment, in order to meet the requirements of the Consultation:
- i. Comments that arise directly from the Consultation documents (Technical or Core documents) and which can be traced back to the relevant Appendix below.
  - ii. Missing information and data that has not been included in any of the Consultation documents that are significant enough to draw attention to.
  - iii. Comments that have been made by the Council in previous consultations and which have not been dealt with either in this consultation or so far more broadly. The key deficiencies and omissions both from PINS (which led to the withdrawal of DCOv1) and from the Council are set out in Section 2.3 below.

## 1.2 Document Structure

- 1.2.1 This report is structured, as follows:
- i. Chapter 2 provides the Council's summary response to HE's Community Impacts Consultation.
  - ii. Chapter 3 provides summary response to compensation and Thurrock's land interests.
  - iii. Chapter 4 sets out broadly the recommendations and suggested next steps for further engagement with the HE design team.
  - iv. Appendices A – K provides the full response to technical and core consultation documents.

## 1.3 Overview

### The Council's Overall Position on LTC

- 1.3.1 As with the three previous rounds of public consultation, the Council's position is one of objection in principle to the LTC scheme as it gives rise to substantial harm to the Borough. This position is unlikely to change as a result of the current proposal, which currently delivers very little benefit for local people and does not deliver on HE's own scheme objectives '*to support sustainable local development and regional economic growth in the medium to long term*' or to '*minimise adverse impacts on health and the environment*'.
- 1.3.2 The Council continues to engage with HE in order to fulfil its statutory obligations and to protect the interests of the Borough. This is important in order to comply with PINS Advice Note Two: '*The role of local authorities in the development consent order process*' (this states at paragraph 6.2 '*Local authorities should engage proactively with a developer even if they disagree with the proposal in principle... Local authorities are not undermining an 'in principle' objection to a scheme by engaging with a developer at the pre-application stage*'). With this in mind, the Council continues to have a Planning Performance Agreement (PPA) in place with HE, which will provide some financial support for resources needed to respond and engage with HE on technical matters. This aligns with the Council's usual practice for major development applications within the Borough.
- 1.3.3 The Council has consistently set out in its three consultation responses its key issues with the scheme and in February 2021 the Council published its Hatch Report entitled '*LTC Mitigation*'

*Benefits*, which set out in some detail the 58 mitigation, avoidance and compensation measures it required should the scheme proceed.

- 1.3.4 The Council has continued to engage with HE to achieve the measures identified in the Hatch Report through the DCO securing mechanisms and other means, which necessarily will involve much discussion and some compromise. Clearly, HE will want to achieve an improved level of support from the main host local authority prior to the Examination. The Council will maintain its opposition, whilst negotiating these measures and other scheme improvements, without compromising this overall position.
- 1.3.5 The Council's constructive opposition is to details of the proposed route as set out below in more detail, not necessarily opposition to the principle of a further Thames crossing, recognising this does not alter the 'in principle opposition' stance.

### **Summary of the Council's Key Issues**

- 1.3.6 The Council has now responded to three previous consultations and offered Executive Summaries of its key issues. The following sets out the Council's current key issues. These issues are in response to this Consultation, whilst recognising missing information (deficiencies and omissions) and issues that have not previously been responded to adequately by HE. The following narrative broadly follows the sequential sections of the following Summary Review (Sections 2.1 – 2.19 and Section 3) but does not include summaries of the accompanying Appendices (Sections 2.20 – 2.33), which deal with matters of technical detail.

### **Consultation & Policy**

- 1.3.7 In terms of the practicalities of the Community Impact Consultation, the Council contend that the timing over the summer months (especially after an 18-month pandemic), the 8-week length, the volume of documents and the accessibility of the materials and process were inappropriate and inadequate. Furthermore, whilst the number of technical meetings, topics covered and meeting notes during 2021 may suggest meaningful technical engagement, it was not. This is because:
- i. Some technical documents were issued by HE for comments late;
  - ii. Very few issues have yet been resolved or agreed;
  - iii. There has been limited responses from HE on key Council reviews; and
  - iv. There is critical information missing from the consultation (traffic modelling data, updated air quality and noise assessments and details of updated health impacts and mitigations).
- 1.3.8 In summary, there were many deficiencies and omissions within DCOv1 identified by PINS and some of these plus many others are still not part of this consultation.
- 1.3.9 As detailed in all previous consultation responses to the LTC scheme, the Council continues to have substantial concerns about the lack of performance of the scheme against national and strategic policies as well as HE's 7 scheme objectives. The Council maintains particular concern relating to the inadequacy of option testing that gave rise to the current scheme and its commensurate ability to delivery of economic growth and facilitating sustainable local development. These national, strategic and HE policies and objectives are fundamental to justifying an appropriate scheme and should be properly accounted for in the pre DCO application design.

## Traffic Modelling & Transport Alternatives

- 1.3.10 The Council is concerned that it has not yet received sufficient transport modelling evidence in support of the evaluation of alternative scheme configurations, provision for future growth scenarios in Thurrock, and consideration of impacts on the Local Road Network (LRN). The Council therefore believes that HE has:
- i. Failed to demonstrate that the proposed layout of LTC through Thurrock is the optimum configuration, particularly the A13 junction;
  - ii. Failed to adequately consider the implications of the very significant levels of local growth on the LTC scheme; and
  - iii. Failed to satisfactorily assess the impacts of the LTC scheme on the local highway network.
- 1.3.11 This non-statutory consultation does not address these issues, and the Council's serious concerns remain. **Appendix AA** summarises the position, detailing the issues of concern, the information that has been requested, the reasons for those requests and the inadequacy of HE's responses to date.
- 1.3.12 The Council therefore believes that the appraisal of options for the route north of the Thames thus far is wholly inadequate in the context of the scheme's substantial impact on the communities of Thurrock, and does not think it unreasonable to expect that HE should be able to present its appraisal of the options for alternatives: the design of the A13 junction, Tilbury Link Road (TLR), connections with local junctions, provision for local growth, connections with active travel and public transport modes. HE seems to be taking the lack of debate on these matters in previous years, and the passing of the scheme into its investment strategies, as being sufficient evidence that these matters have been dealt with. The recent experience of the A38 and A303 schemes suggests that this is not a safe assumption.

## Local Impacts & Benefits

- 1.3.13 There is a lack of **secured benefits for existing communities and future growth in Thurrock. Key strategic issues remain outstanding**, which have previously been raised by the Council. This lack of real benefits for Thurrock from LTC is in terms of a number of factors:
- i. Investment in delivery of a practicable local benefits strategy;
  - ii. Ability to help facilitate a legacy in terms of local regeneration;
  - iii. Provision of open space to contribute positively to place-making and deliver community benefits;
  - iv. Improved local road operability to help facilitate liveable communities;
  - v. Increased Public Rights of Way (PRoW) connectivity; and
  - vi. Facilitate movement by active travel through improved connectivity and standards.
- 1.3.14 This is especially true regarding the emerging Local Plan, as the LTC scheme does not make provision for, and is inconsistent with, the housing and development potential for Thurrock and the aspirations for the Borough and for the wider South Essex area. LTC clearly presents, along its route, an opportunity to support and enable growth in sustainable locations, particularly in East Tilbury, Chadwell St March and South Ockendon, based on appropriate local access.

- 1.3.15 Clearly, without confirmation of HE's support on additional junctions at Tilbury, South Ockendon and Tilbury Loop Line Overbridge and approach roads; wider network improvements, public transport provision and the provision of more and better WCH facilities; then LTC will hamper future growth in Thurrock due to the severance of, or impacts on, the land available for the provision of homes and jobs in these locations.
- 1.3.16 The **TLR** is required to provide essential and improved access to the Port of Tilbury, its Tilbury 3 and 4 expansion areas (as part of Thames Freeport) and other employment areas west of the LTC alignment, as an acknowledged major employment cluster in the emerging Local Plan. The TLR, as a critical ingredient in the success of Thames Freeport, must either be provided within the LTC scope or there must be a legal commitment for it to be delivered in parallel to LTC so that it is open for use at the same time LTC becomes operational. In the interim HE must legally commit to 'passive provision' for both the Tilbury and South Ockendon junctions and DfT must commit to the viability and principle of these junctions being provided onto the SRN. The Council is also aware that there is a conflict between the area for port expansion and the current proposals for 'Tilbury Fields'. It is essential that this conflict is resolved as part of these considerations prior to DCOv2 submission so as not to hinder the commitments to deliver Freeports.
- 1.3.17 A related concern is the **effect of LTC on Thurrock's local roads affecting local connectivity**, which has been and continues to be a key concern of the Council. In fact, the Council has consistently and repeatedly raised concerns at meetings and via representations that the impacts on the local roads and junctions are likely to be underestimated resulting in increased likelihood of delay at key junctions, such as the Orsett Cock, Manorway, Daneholes and ASDA roundabouts and several other key locations. HE and the Council agree that further traffic modelling work is required to validate the LTAM model and identify these delay issues. This work should then be followed by improved mitigation proposals from LTC to address these likely impacts. These mitigations could take the form of junction improvements and/or complementary environmentally sound initiatives, including enhanced public transport connections and provision. These are completely missing from the current proposals. The Council contends that the impact on local roads must be part of the traffic modelling evidence base and if mitigation is required then HE should legally commit to a process for that mitigation (possibly a S278 or S38 Agreement or similar or even through a new Schedule 2 Requirement).
- 1.3.18 The Council contends that the LTC **construction for a period of 6-8 years will create unacceptable impacts that require serious mitigation**. Further work on construction traffic modelling is required to understand likely impacts and more robust traffic management and travel plans are required with defined governance, complemented by a progressive Materials Handling Plan that together maximise non-road transport, minimises impacts on local communities and reduces embedded carbon. Workforce travel also must be secured, with targets, through encouragement of the use of active travel modes and reducing private car use. The Council considers that environmental impacts are likely to be significant, but must be based on more granular and updated data, especially in respect of air quality, noise, health, severance, effect on PRoWs with closures and diversions, loss of historic buildings and deleterious effects on cultural heritage and other key topics. Utility relocations are extensive and whilst reduced impacts have been achieved over the last year, there is still a lack of information on likely impacts on residents and businesses. Monitoring during construction for a range of factors is essential and the proposed monitoring regime to inform key control, management and governance is unclear.

## The Future

- 1.3.19 The LTC scheme currently makes no substantive reference to the implications of the LTC scheme to **transport decarbonisation**, how the scheme might need to be adapted to respond to this challenge or to become an enabler of transport decarbonisation and green growth in the Thames Estuary using alternative modes and travel patterns. The HE Net Zero Highways Plan states that they will *'use the LTC scheme as a key project to test low carbon innovation*



*and approaches*'. Therefore, the Council expects that HE should be making commitments in the DCO about transport decarbonisation and its implications locally. HE has stated that the DCO commitments on carbon will be stronger and more comprehensive than previously seen, but has expressed concern about committing to delivering outcomes that are inherently uncertain. However, the Council believe that it is possible and desirable to set broad objectives and a committed framework for future action, secured through the DCOv2. The Council believes this should involve within the LTC scheme regional public transport links using the proposed tunnel, achieving net zero HGVs, use of the TLR for freight and public transport local connections and increased use of carbon reduction transport alternatives (as set out further in Section 2.11 below).

- 1.3.20 The Council is promoting its Active Travel Strategy through the emerging Local Plan that should result in **increased usage of PRoW and cycling routes** throughout the Borough. The Council is therefore seeking meaningful support from the LTC scheme by requesting the addition of further routes and links to the 5 currently proposed within the LTC proposals. The Council wants to ensure that up-to-date DfT standards (LTN 1/20) for all bridge crossings are employed by HE (not currently confirmed) to accommodate this future usage. This will help to ensure that LTC does not become a future barrier to increased walking and cycling use across the Borough or cause the Council to incur severe financial penalties from DfT, resulting in a loss of capital and maintenance funding allocations.
- 1.3.21 There is no currently secured commitment from HE to **achieve local skills and employment targets**, particularly for apprentices, workless job starts, graduates and traineeships, work placements and training for local residents. Also, the **Skills, Education and Employment Strategy (SEE) is not a 'control' document and not secured within DCOv2 and there are limited commitments within the CoCP/REAC**. Therefore, the subsequent Employment and Skills Plans by LTC contractors are not committed to any overall framework. There is a once in a generation opportunity to support the local community to develop skills and employment opportunities. These commitments cannot be seen by HE as an add-on or burdensome requirement but should be central to the LTC scheme. In addition, there is **no commitment for the LTC project to adopt the social value procurement requirements** set out in both the Social Value Act, 2012 and the Council's Social Value Framework, adopted in November 2014 in procuring its goods, materials and services.
- 1.3.22 The Government's 'Decarbonising Transport – A Better, Greener Britain' was published on 14 July. This was followed on 19 July by HE publishing their '*Net Zero Highways – Our 2030/2040/2050 Plan*'. HE was fully aware of these significant documents prior to its consultation exercise. It is expected that HE **provides clear commitments to decarbonising the LTC scheme** throughout its lifecycle, prior to DCO re-submission, and explain how these two critical policy documents will be addressed through the DCOv2. The current LTC scheme and the associated climate change impacts appear to be inconsistent with the 78% Carbon Reduction by 2035, which is now enshrined in UK law via the Climate Change Act 2008 (and its 2019 Amendment Order) and its subsequent Carbon Budget Orders of 2021. Measures expected should include both project specific interventions, such as zero carbon energy provision for operation, landscaping and low embodied carbon material use; and, regional interventions, such as supporting strong modal shift to sustainable transport modes, new low carbon infrastructure and legacy skills.

## The Legacy

- 1.3.23 The Council is disappointed that **very few of the 58 measures set out in the Hatch Report have been agreed**, as referred to in paragraph 1.3.3 above, despite some 9 months of continued and focussed technical discussions. Key priority measures for the Council are jobs and skills commitments, social value commitments, wider network (East Facing Slips and A13 trunking) commitments, several local connectivity improvements (passive provision for two future junctions, Tilbury Loop Line Overbridge, roundabout improvements and TLR), improvements to public transport connections, Council funding support and further improvements to the PRoW and cycling network and use of compliant standards. These



measures are considered crucial to the Council in achieving its provision for the emerging Local Plan and to ameliorate the current LTC scheme, reducing its impacts on residents.

### Technical & Process Matters

- 1.3.24 Local authorities need to have a **leading role in the discharge of DCO Requirements**, as they do in most DCO applications, excepting those currently by HE. The majority of LTC is within Thurrock. The Council is the interface between the development for the majority of the strategic road network and creating benefit for the future of local residents/stakeholders. The Council is concerned that leaving the discharge of requirements to the Secretary of State risks the national strategic case dominating future plans and the local case for local residents/stakeholders being overlooked.
- 1.3.25 The Council does not agree with the current proposals to disapply the Council's network management powers, including the current street works permitting systems and the consenting on temporary Traffic Regulation Orders. The changes would impact on the Council's ability to manage effectively the LRN including works being carried out as part of the delivery of the Project and also works carried out by other major projects and day to day operations on the LRN.
- 1.3.26 There are still significant information gaps and the potential for under-reporting potential impacts within this consultation. This information is critical for the Council to provide a fully informed and appropriate response, which it cannot do. This is evidenced by the joint local authority letter to HE setting out these 3 critical deficiencies/omissions, as forwarded to PINS in August 2021.
- 1.3.27 The Council is concerned about the **lack of adequate provision for emergency services within the LTC scheme or any securing mechanism for its provision**, especially relating to the lack of detail and absence of measures to support the emergency services and safety partners. It does, however, recognise that the Emergency Services and Safety Partners Steering Group (ESSPSG) have provided their initial response to HE in August 2021 and they will be providing a separate and more detailed response to the HE Consultation, which will set out their concerns in detail. The ESSPSG have sought the memberships' approval to submit this draft response by the deadline, allowing for further governance and any further detailed comments to be made in the following weeks.
- 1.3.28 The Council's main **substantive concerns regarding proposed utilities diversions** relate to the extent of land-take required and likely impacts on communities and existing infrastructure, including in terms of disruption and safety. These concerns and deficiencies significantly hinder the ability of the Council to clearly understand the types and levels of environmental impacts and mitigation requirements associated with each proposed utility diversion and so the current LTC scheme does not clearly establish the environmental acceptability of all proposed diversions. These concerns can be summarised as: inadequate reporting; absence of consistent referencing and diversion descriptions; inability to validate NSIP screening conclusions; lack of clear identification/screening of OHL proposals; absence of justification to support assumed Associated Development status of non-NSIP diversions (as required in DCLG Guidance on associated development, 2013); utility diversions have been considered as a consequence of the preferred route and not as a major design consideration at the outset; weak application of undergrounding test within NPS EN-5; and, weak approach to environmental mitigation secured through EMP2 (and limited commitments in the CoCP/REAC) with consequently less control. All these concerns must be addressed before DCOv2 to resolve the vagueness of the current proposals and mitigations.

### HE Compensation Policy & Thurrock's Land Interests

- 1.3.29 **HE's policy, 'Your property and compensation or mitigation for the effects of our road proposals'**, simply refers to and re-states legislation that provides LTC with options for

mitigating scheme impact both to the environmental and to local residents. The measures for local residents include options in respect of increased noise (including planting, noise insulation and noise payments), expenses for suitable temporary moves and off-line discretionary home purchase. The policies, in most cases, do not go further than the statutory position and provide limited comfort due to their discretionary nature and lack of specific details (including application process, response timeframe and support etc.). Further, no support is offered for local businesses or other property uses outside of residential.

- 1.3.30 The Council's land interests have been identified as totalling 174 land parcels that are impacted by the LTC scheme. These cannot be properly assessed as the 'Statement of Reasons' does not provide sufficient detail, including only limited justification and explanation for the sought compulsory powers and land requirement. However, its deficiencies include no design justification, the mitigation proposed, predicted local impact, acquisition dates and exact land take and timeframe for temporary possessions. It is hoped that this further information can be provided in detailed engagement meetings between the parties, prior to DCOv2 submission.

## 2 Summary Response to Highways England's Community Impacts Consultation

### Consultation & Policy

#### 2.1 Accessibility of consultation, timing, length and volume of consultation materials

- 2.1.1 The Community Impacts Consultation was held between 14 July – 8 September, a total of 8 weeks. It involved the provision of 9 technical documents, 7 'core' documents, a range of Map Books and Maps, a HE non-statutory compensation/mitigation policy document and some 'easy read' documents – a total of 30 separate items. This documentation totalled over 3,500 pages and did not contain any non-technical summaries and the three 'easy read' documents (Guide, Ward Summaries and You Said We Did) did not fulfil that purpose. In addition to the published materials, 6 webinars were held, there was a telephone call-back service, 18 in-person events were available, and all consultation materials were online. In addition, hard copies were available on request, but only for a period of 7 weeks.
- 2.1.2 Four local authorities (Thurrock, Kent CC, LB Havering and Gravesham BC) formally requested by a joint letter to HE an extension of 4 weeks to this consultation, based on 5 specific reasons. This request was rejected as it was considered that 8 weeks was adequate and the public had not requested it and that three of the reasons given were, in its view, not related to public consultation. However, HE has offered additional time to each local authority to accommodate longer governance processes, arranged by individual agreement.
- 2.1.3 The Council contend that the timing over the summer months (especially after an 18-month pandemic), the 8-week length, the volume of documents and the accessibility of the materials and process were inappropriate and inadequate. The Council's challenge on these matters can be broadly explained, as follows:
- i. **Timing** – the consultation occurred over the summer months following the 18-month pandemic with some Covid-19 restrictions still in place, when many Council officers and their specialists were taking much needed annual leave, making responses difficult to finalise as many technical officers are unavailable. It is noted that many HE staff themselves were on leave and unavailable during this period. We would add that public authorities are unlikely to be permitted to undertake major consultations during the summer months.
  - ii. **Length of Consultation** – the consultation period is only 8 weeks long and accounting for the various needs of Council governance only offers 4-6 weeks in which to prepare the technical draft responses to what is over 3,500 pages of core and technical documents. Furthermore, those residents only able to access hard copies have only 7 weeks to review following receipt of any documents requested.
  - iii. **Volume of Documentation** – the extent and range of the documentation with some 2,500 pages of public-facing documents and almost 1,000 pages of technical documents was considerable. The public facing documents were overwhelming in quantity and complexity, although useful, but in most cases were 'too much too late'. The 9 technical documents (plus maps), although some were received 1-2 weeks prior to consultation commencing (refer to paragraph 2.2.1 iv below), covered some of the proposed 'control' documents and some had not been seen before and needed to involve careful review by many different officers/specialists. Consequently, there was limited pre-consultation engagement, which was limited to sharing several draft control documents and to two overall content meetings following the Council's comments on the HE draft 'Approach to Consultation' document.

- iv. **Accessibility of Materials** – current guidance relating to consultation is set out in DCLG's '*Planning Act 2008: Guidance on the pre-application process*' (2015) and the guidance references that consultation should be thorough, effective and proportionate with sufficient time for consultees to understand proposals and formulate a response. This is made especially difficult for the public with the combination of the volume of materials and the 7-8 week consultation period over the summer. Furthermore, the Council is concerned that certain vulnerable groups may be under-represented, particularly those with limited access to the internet or difficulties in downloading large documents.

- 2.1.4 Whilst HE has acknowledged stakeholder concerns regarding the length and timing of the consultation, the programme has not been amended. Furthermore, it is generally good practice, if providing a consultation during an extended holiday period (Christmas, Easter or summer school holidays (mid-July to end August)), that the consultation period be extended to accommodate annual leave arrangements, so as to seek to stakeholder engagement.
- 2.1.5 It is noted that HE places a heavy reliance of programme and process in this consultation rather than effectiveness of consultation, especially as this fourth consultation is extremely complicated and is an acknowledged attempt to address serious failings in previous consultations as set out in the PINS meeting note dated 26 November 2020, paragraphs 19-44 (lack of feedback on how comments have been addressed, lack of a local emphasis, lack of understanding of community or construction impacts and a lack of technical information and measures for controlling the scheme going forward). The result is HE trying to achieve too much in too short a time and the Council considers that consultation fatigue makes effective consultation at this stage particularly challenging.
- 2.1.6 In addition, the programme puts a heavy reliance on achieving a DCOv2 submission programme in November 2021, which only allows 2-months from consultation close to DCOv2 re-submission. This is considered insufficient time to understand and properly account for public and stakeholder consultation comments, let alone trying to resolve the many and substantial technical issues between HE and stakeholders.

## 2.2 Lack of meaningful technical engagement and inability to change/accommodate comments positively

- 2.2.1 It is acknowledged that HE has held many technical meetings during 2021 on a range of topics, such as a range of environmental topics contained within the Statement of Common Ground (SoCG)/Issues Logs, traffic modelling, transport design, construction impacts and traffic, legacy, travellers impacts, design matters, emergency provision, Hatch Report measures (refer to Section 2.15 below), waste and materials handling, health through Community Impacts and Public Health Advisory Group (CIPHAG), wider network impacts and provision and open space and WCH provision. However, whilst the number of meetings, topics covered and meeting notes may suggest meaningful technical engagement, it was not. The reasons it was not meaningful technical engagement can be set out, as follows:
  - i. HE's own '*Summary of LA Technical Engagement*' v7, 8 and 9 were issued on 27 January, 5 March and 16 April 2021 (there has been no issue since), these set out dates for receipt of draft technical, 'control' documents and in most cases, receipt was delayed by 1-3 months.
  - ii. Despite many technical meetings over 8 months during 2021, very few comments from Council officers/specialists have been agreed, as has been set out in progress/update tables exchanged after each fortnightly meeting, except the relatively easy requests, but nothing substantial.
  - iii. The Council issued technical comments on over 25 draft technical documents in the period spring – autumn 2020, but no reaction to these comments was received until early spring 2021, thereby delaying proper engagement on the issues with DCOv1.

- iv. Although some technical documents have been received over the two months prior to the consultation (these have included several 'control' documents, such as the oLEMP, oTMPfC and oSWMP), subsequent versions have been issued at consultation making version control difficult to follow and ongoing technical discussions difficult to properly track.
- 2.2.2 In addition to the above failings, the joint local authority letter (referred to above in Section 2.1) pointed out the lack of critical information within the consultation materials that made commenting difficult and prevented the Council from advising residents and the public on key technical matters and thereby providing an informed consultation response. These four matters were:
- i. Councils have only just received, on 23 July 2021, the updated operational traffic modelling data for the years 2029, 2036, 2044 and 2051, including the significant additional lane on the LTC to A13 slip road. The Council has downloaded the data, but some LAs have had technical/IT difficulties, thereby adding to the time. It will take some 3-4 weeks to analyse the data, which would then go beyond the current end of consultation and as this analysis is so critical to many aspects of the consultation, any responses would be lacking this critical issue.
  - ii. The updated construction modelling has not been received, which is assumed to be the basis of the documentation regarding construction impacts. This is expected mid-late August.
  - iii. Due to the late receipt of the traffic modelling data, we will also not be receiving the air quality and noise updated assessments until well into September, again after the current consultation is due to close, which will require several weeks to properly analyse and review. This is acknowledged in both the Consultation's Construction Update (Section 1.6, Page 16) and the Operations Update (Paragraph 39, Page 172) – that air quality and noise assessments are worst case but are only an indicative summary of the likely effects based on earlier versions of the project and further modelling is required.
  - iv. Finally, and also due to the delay and effects of matters above, we will not even be discussing the **updated health impacts or any attendant mitigation** until later in September at the CIPHAG meetings, again after consultation has ended.
- 2.2.3 HE has stated in their response letter to the joint local authority letter that this missing data is not relevant to this public consultation and are '*....not part of the consultation, so neither you nor the public need to analyse them....*'. The Council contends that these four technical issues of traffic modelling (operational and construction), air quality and noise assessment and health impacts/mitigation are essential and critical to assessing the current consultation materials, as without their conclusions the design proposals, the impacts assessment and mitigation proposals cannot be properly judged. The Council therefore cannot provide a holistic and fully effective consultation response and so reserves its right to comment further once this missing information has been provided and assessed.
- 2.2.4 HE has offered a range of additional wording to some 'control' documents that is welcome, although not going far enough. However, more importantly, HE has exhibited a resistance to consider changes to their current proposals to reflect comments on its lack of future-proofing to provide for sustainable transport solutions, or the role of technology in emerging travel patterns, including for public transport and freight movement; or to adequately explain alternatives that led to current key design elements. Despite all this, just prior to consultation an additional lane to the slip road from LTC to the Orsett Cock Roundabout was introduced at a meeting requested by HE in June 2021, with very limited explanation – a significant design change at a late stage, due to traffic modelling that the Council have only just received. This late change was explained as being required to avoid recently predicted queuing on the running lanes of the LTC and was confirmed as within current Order Limits. There was no information on the likely effects on Orsett Cock Roundabout or the potential air quality or noise

impacts of this proposal, which are not included within this current consultation. In fact, this new proposal has not been fully incorporated into many consultation documents.

- 2.2.5 HE has also refused to provide additional controls post-DCO grant and has refused to provide additional necessary mitigation and legacy benefits suggested by the Council, which are set out further within this Summary Review and its accompanying Appendices.

## 2.3 Key Deficiencies/Omissions in Community Impacts Consultation

- 2.3.1 The Council believes that there are a number of key deficiencies and omissions within the current LTC scheme and within this current consultation that have been set out in previous Council consultation responses and are set out below. However, before setting these out it is worth summarising the deficiencies and omissions identified within the PINS meeting note dated 26 November 2020, following the HE DCO withdrawal and after discussions with HE.
- 2.3.2 The deficiencies and omissions identified by PINS in November 2020 are set out below, together with an update on the current position:
- i. Lack of a Transport Assessment (Paras 1 and 37) – this was provided by HE in December 2020 as part of the DCOv1 submission documents and was responded to in detail by the Council in March 2021 but has not yet been commented on by HE since then.
  - ii. Lack of Detailed and Up-to-Date Traffic Modelling Information (Para 37) – this relates to considering environmental effects arising from changes to levels of traffic and mitigation and indicates that the traffic modelling output did not contain the level of detail reasonably required for consultees to develop an informed view.
  - iii. Lack of Traffic Management proposals (Paras 2-5) – now included within the Outline Traffic Management Plan for Construction (oTMPfC) and the Council's extensive and significant comments are set out in **Appendix A (1)**.
  - iv. Lack of a Site Waste Management Plan (Paras 13 and 14) – provided in initial draft by HE in February 2021 and commented on by the Council in March 2021. It is now included within the Outline Site Waste Management Plan (oSWMP) and the Council's extensive and significant comments are set out in **Appendix B (1)**. However, there was also a need to set out materials handling proposals, impacts and mitigations – this is now included within the Outline Materials Handling Plan (oMHP) and the Council's extensive and significant comments are set out in **Appendix B (2)**.
  - v. Lack of Environmental Information (Paras 31-36) – this was provided within the ES and its Appendices as part of the DCOv1 submission documents shared in December 2020. The Council has set out its comments in October 2020 and these were responded to by HE in February 2021. These matters are still the subject of ongoing technical engagement but there are many issues outstanding and unresolved.
  - vi. General Comment on Lack of Sufficient Information and Need for Adequate Consultation (Paras 19-27) – this may be partly addressed within the current consultation, but there still remains a paucity of information as set out in the Summary Review and its accompanying Appendices.
  - vii. Lack of Feedback from Previous Consultations (Paras 38-44) – this has now been partially but inadequately addressed within the 'You Said We Did' document and the Council's extensive and significant comments are set out in **Appendix I**.
  - viii. Lack of a Landscape and Ecology Management Plan (LEMP) (Para 45) – provided in initial draft by HE in February 2021 and commented on by the Council in May 2021. It is now



included within the Outline Landscape and Ecology Management Plan (oLEMP) and the Council's extensive and significant comments are set out in **Appendix F**.

- v. Minor Errors and Omissions (Pages 10-12) – these were set out as a list, and it is assumed that they will be dealt with in DCOv2.

2.3.3 Further to the above list, the Council has set out throughout this Summary Review and the accompanying Appendices a number of key deficiencies and omissions, and these can be summarised below with more detail provided in subsequent sections:

- i. Lack of Key Elements of Operational Traffic Modelling Data and Analysis (refer to Section 2.5 below).
- ii. Lack of updated Construction Modelling Data (refer to Section 2.10 below) – this was only received on 27 August 2021.
- iii. Lack of updated Air Quality and Noise Modelling Assessments (refer to Sections 2.17 and **Appendix H**).
- iv. Lack of updated Health and Equality Impacts and Mitigation for consideration and discussion (refer to Section 2.17 and **Appendix H**).
- v. Lack of adequate Consideration of Alternatives (refer to Section 2.6 below).
- vi. Lack of Adequate Local Impact Assessment and/or related Benefits Provision (refer to Section 2.7 below).
- vii. Lack of consideration of Impact on Local Roads (refer to Section 2.9 below).
- viii. Lack of consideration of and Provision for Future Travel Patterns, Public Transport Provision and Future Technology Changes (refer to Section 2.11 below).
- ix. Inadequate Proposals for PRoW and Cycling (refer to Section 2.12 below).
- x. Lack of Commitment to securing targets for skills and employment local provision and social value procurement (refer to Section 2.13 below).
- xi. Inadequate Response and Provision for the changing policy environment and legislation relating to Climate Change and Decarbonisation (refer to Section 2.14 below).
- xii. Limited provision for legacy or the securing commitment to do so, beyond some helpful but limited provision of HE's Designated Funds and the potential provision of the Tilbury Loop Line Overbridge. The legacy requests were set out in the Hatch Report (refer to Section 2.15 below).
- xiii. Lack of adequate provision for emergency services within the LTC scheme or any securing mechanism for its provision, especially relating to the lack of detail and absence of measures to support the emergency services and safety partners (refer to paragraph 2.17.3 below).

2.3.4 It is considered that the timely provision of the above data and allowing time for analysis and discussion with HE to resolve issues would mean that the DCOv2 submission later this year is not appropriate as there will be many unknowns and limited resolution of key issues prior to submission.

## 2.4 National and Highways England Policies – non-compliance

2.4.1 In previous consultation responses for Statutory, Supplementary and Design Refinements Consultations the Council has commented about the lack of performance of the scheme against national and strategic policies as well as HE's 7 scheme objectives. In particular, relating to option testing that give rise to the current scheme, the delivery of economic growth and achieving sustainable local growth.

2.4.2 The national and strategic policies and scheme objectives that the scheme does not satisfy relate to the following documents and their key provisions, broadly set out below:

- i. NPSNN (2015) – paragraph 2.13 – *'...the Strategic Road Network provides critical links between cities, joins up communities, connects our major ports, airports and rail terminals. It provides a vital role in people's journeys, and drives prosperity by supporting new and existing development, encouraging trade and attracting investment.'*
- ii. Paragraph 4.3 – *'...in considering any proposed development, and in particular, when weighing its adverse impacts against its benefits, the Examining Authority and the Secretary of State should take into account: its potential benefits, including the facilitation of economic development, including job creation, housing and environmental improvement, and any long-term or wider benefits; its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.'*
- iii. Paragraph 4.27 – *'All projects should be subject to an options appraisal. The appraisal should consider viable modal alternatives and may also consider other options (in light of paragraphs 3.23 to 3.27 of this NPS). Where projects have been subject to full options appraisal in achieving their status within Road or Rail Investment Strategies or other appropriate policies or investment plans, option testing need not be considered by the examining authority or the decision maker. For national road and rail schemes, proportionate option consideration of alternatives will have been undertaken as part of the investment decision making process. It is not necessary for the Examining Authority and the decision maker to reconsider this process, but they should be satisfied that this assessment has been undertaken.'* In our view, the implications of this is for HE to provide a DCO document setting out a full explanation of the options and alternatives explored since the Preferred Route Announcement in April 2017 to satisfy the Examining Authority.
- iv. The DfT's Road Investment Strategy 1 and 2 (RIS 1 and 2) – *'the Company [HE] will, therefore, engage with other infrastructure providers and private developers to build long-standing relationships that help unlock opportunities for growth, including the construction of new housing, industrial and business sites, while also collaborating with local authorities to identify interventions on and off the network.'* (RIS 1 and 2)

*'RIS does not seek to predict the future, but takes into account a range of possible outcomes, underpinned by broad evidence, which the Department will continue to build on and review. The Department and the Company [HE] must be an active contributor in efforts to ensure the UK takes advantage of these global technology trends, facilitates investment and boosts overall UK capability.'* (RIS 1 and 2)

*'Our ambition for the next 25 years is to revolutionise our roads and create a modern SRN that supports a modern Britain, making a real difference to people's lives and businesses' prospects.' 'Improvements to the SRN are also designed to bring economic benefits to the local area and wider region.'* (RIS 2)

*'These and other emerging challenges will ensure that the need to improve the SRN's environmental impact remains at the forefront of decision making.'*

*'We are also likely to see increasing automation on the roads as we transition from existing vehicles, via assisted driving services like platooning, to the deployment of fully*



*autonomous vehicles. While driverless technology still has to mature, it clearly has the potential to transform the UK's transport networks – improving safety, reducing congestion, and lowering emissions. While the timing of development and mass market adoption of many of these technologies is unclear, what is certain is that changes are coming, the impact of these changes on the road network of the future will be real, and we need to support such advances as much as possible.’ (RIS 2)*

*‘We expect the SRN to continue to play a key role in unlocking access to new housing Developments.’ (RIS 2).*

- v. HE's 'The Road to Growth – Our Strategic Economic Growth Plan' (2017) – ‘the practical steps which HE is taking to increase its economic contribution in 4 areas:
    - *Supporting business productivity and competitiveness, and enabling the performance of SRN-reliant sectors;*
    - *Providing efficient routes to global markets through international gateways;*
    - *Stimulating and supporting the sustainable development of homes and employment spaces;*
    - *Providing employment, skills and business opportunities within our sector’.*
  - vi. HE's Strategic Business Plan (2017) – ‘...we will improve our planning for the next decade and beyond.’ This will mean:
    - *‘Taking a more responsive and coherent approach to planning – one that is better understood by our customers, staff, suppliers and partners;*
    - *Giving stakeholders more of a say in how we develop the network at a national, route and local level;*
    - *Exploring new and better ways to stimulate growth;*
    - *Encouraging innovation especially to exploit the benefits of vehicle and roadside technology;*
    - *Ensuring our customers have more of a voice in determining investment priorities and how work is delivered.’*
  - vii. LTC 7 published scheme objectives – the key objective of relevance for Thurrock is ‘To support sustainable local development and regional economic growth in the medium to long term.’
- 2.4.3 The Council contend that the current LTC scheme does not satisfy these above mentioned policies and that the scheme could be substantially improved if these policies were properly and substantively adhered to, in discussion with the Council. We therefore make the following specific points again for HE's consideration:
- i. Although an options appraisal has been undertaken to select the preferred route (PFA) for the LTC, there is no available evidence that an options appraisal has been carried out to inform the configuration of the current Consultation Scheme (junction locations, junction types, restricted movements, Public Rights of Way crossing locations, scheme height, alternative modes, etc). This is the responsibility of the promoter, but given the impact of the A13 junction, and the importance of connections and Tilbury and South Ockendon, it would be expected that alternative configurations at these locations would be considered.

- ii. The traffic modelling output available does not include results of any option testing to understand the scheme impacts on the local networks and residents, businesses, open countryside and designated environmental areas.
  - iii. Local junction improvements and other mitigation may be necessary and should be funded and delivered with the scheme.
  - iv. It is not clear from the evidence presented within consultation materials why the proposed connection to the Port of Tilbury has been removed and option testing is not provided.
  - v. It is recommended that HE works with the Council to seek to ensure that appropriate passive provision is made in the Consultation Scheme to safeguard for future local transport links to enable growth within the Borough and it could assist with providing for fundamental active travel, public transport and/or highway connections (as set out in Section 2.7 below).
  - vi. The Consultation Scheme makes provision for the replacement/re-provision of PRow which are affected by the proposals; however, further details are sought in relation to the temporary provision/mitigation during the construction phase.
- 2.4.4 These national, strategic and HE policies and objectives are fundamental to justifying an appropriate scheme and should be properly accounted for in the pre DCO application design, so that PINS Examination time is not wasted in discussing such basic requirements.

## Traffic Modelling & Transport Alternatives

### 2.5 Traffic Modelling Issues

- 2.5.1 The Council is concerned that it has not received sufficient transport modelling evidence in support of the evaluation of alternative scheme configurations, provision for future growth scenarios in Thurrock, and consideration of impacts on the LRN. The Council therefore believes that HE has:
- i. Failed to demonstrate that the proposed layout of LTC through Thurrock is the optimum configuration, particularly the A13 junction;
  - ii. Failed to adequately consider the implications of the very significant levels of local growth on the LTC scheme; and
  - iii. Failed to satisfactorily assess the impacts of the LTC scheme on the local highway network.
- 2.5.2 This non-statutory consultation does not address these issues, and the Council's serious concerns remain. **Appendix AA** summarises the position, detailing the issues of concern, the information that has been requested, the reasons for those requests, and the inadequacy of the HE's responses to date.
- 2.5.3 The Council also has concerns about the modelling undertaken for construction traffic, and these issues are dealt with in Section 2.10.

## Scheme Alternatives and Provision for Growth

- 2.5.4 In December 2018, in responding to the LTC Statutory Consultation, the Council expressed its concern about the adequacy of the evidence in support of the necessary evaluation of alternative scheme configurations, and the selection of the then preferred scheme layout, particularly in relation to the layout of the junctions with the A13, Orsett Cock and TLR in Thurrock.

- 2.5.5 The Council's response to Supplementary Consultation (January to April 2020) expressed concern about the lack of consideration of the very significant proposals for growth in Thurrock, and thus the potential for the scheme to be a barrier to sustainable growth in the area.
- 2.5.6 In March 2020, the Council issued '*HE Modelling Specification Note*' (PART 1), which included indicative Local Plan growth assumptions and network files. This contained the information necessary for HE to run Local Plan growth scenarios, with alternative network assumptions, such as with/without the A13 junction, TLR and improvements to ASDA Roundabout.
- 2.5.7 HE has been updating the 2027 opening year model to a 2029 opening year model, with forecast year models also being updated by 2 years (e.g. 2042 to 2044, etc.). The Council agreed that the models runs should be carried out on the updated model, as it was confirmed that this would be available very shortly. Only very recently, in response to HEs ongoing traffic modelling work, additional lanes have been added to the A13 interchange to Orsett Cock. The model has been updated again to accommodate this change. HE still needs to undertake further modelling to test the viability of the proposed LTC design, and this may again identify significant changes to the scheme currently being consulted on.
- 2.5.8 In June 2021, the Council subsequently issued updated information to HE to enable the Local Plan growth model runs to be undertaken, including minor network changes, (PART 2: '*Indicative Local Plan (ILP) Model Runs*', includes network files compatible with the latest LTAM model).
- 2.5.9 In July 2021, the Council issued further information to enable model runs to be undertaken to assess alternative scheme layouts, including with/without the A13 Junction, the TLR and South Ockenden junction, ('PART 3: A13 and TLR Option Model Runs', includes network files for options (without the networks related to the indicative Local Plan growth) compatible with the latest LTAM model).
- 2.5.10 Initial experimental runs have been carried out within the out of date model (i.e. 2042 forecast year model), so that as soon as the updated model was ready any issues had been identified for running in the latest model (i.e. for forecast year 2044 in model titled DCO 2). The updated model runs have not been provided yet.
- 2.5.11 The Council has now received the output from the 2029 cordoned LTAM (following preliminary data being received on 29 April, a further update was received on 26 July 2021), but only for the DCO scheme configuration and demand scenarios. It remains in discussion with HE about the running of future growth scenarios and alternative scheme layouts. Without this information, the Council is not in a position to accept that sufficient evidence has been provided to justify the proposed LTC scheme configuration through Thurrock.
- 2.5.12 This lack of evidence also has an impact on the Council's ability to reach conclusions about the consequential analysis of transport related environmental and health effects. Bearing in mind the very significant impacts of the proposed route through Thurrock, there is a high burden of proof on HE to demonstrate that the optimum configuration has been identified, and an appropriate planning balance has been reached in the evaluation of alternatives.

## Local Highway Network Impacts

- 2.5.13 The Council's response to the Supplementary Consultation (January to April 2020) set out its concerns about the validation of the Lower Thames Area Model (LTAM) on the local highways network in Thurrock, with the model data suggesting that baseline traffic flows were being under-estimated, thus undermining the ability of the model to be used for assessment of local highway impacts and mitigation. Concerns have also been expressed about the mis-match between the local AM peak hour (between 08:00 and 09:00hrs) and the modelling peak hour within LTAM, (07:00 and 08:00hrs) and the potential this has for under-estimating local traffic impacts; as well as the issues of induced traffic and rat running (i.e. traffic not following the

intended route). The Council continues to be concerned that these issues have not been adequately assessed in the strategic model, and that further work is necessary to better understand the effects on the local network, and the implications for scheme development.

- 2.5.14 Engagement on these issues has continued since that time, including through the Design Refinement Consultation in July 2020, and following publication of the submission documents for DCOv1 in October 2020. HE has refused to consider revisiting the validation of the 2027 LTAM model. The Council therefore has little confidence on the ability of LTAM to predict traffic effects on the local network, which in turn could have effects on more strategic movements. Although the model has now been recently updated to reflect a later 2029 opening year, this position has not changed.
- 2.5.15 The Council has subsequently suggested, through engagement at the time of the October 2020 publication of the DCOv1 documents, that an alternative approach be adopted by using locally validated micro-simulation models to assess local highway impacts at ASDA Roundabout, Manor Way and the junctions with TLR and at Orsett Cock. It is understood that micro-simulation models are being developed, but apart from one partial demonstration, no substantive evidence has been provided as to the efficacy of these models, or the findings derived from them.

## **2.6 Lack of evaluation of scheme alternatives and provision for growth – to demonstrate efficacy of preferred option**

- 2.6.1 As expressed in the Council's response to the 2018 Statutory Consultation, the Council continues to take the view that the 2016 public consultation did not provide satisfactory comparative evidence for alternative route alignments A and C. No transport modelling evidence was presented at that time to substantiate the strategic choice made.
- 2.6.2 However, since the Statutory Consultation in December 2018, the Council's concerns about options appraisal has focussed on the selection of the LTC scheme configuration along the selected route alignment, including the configuration of the A13 junction, the connections between the LTC and the local area, and necessary local highway mitigation. Despite these concerns being debated since that time, HE has not provided substantive evidence of any testing of alternative LTC scheme configurations.
- 2.6.3 Section 2.5 above sets out the Council's concerns about the lack of evidence presented about the lack of any testing of alternatives, including the form of the junction between LTC and A13 and TLR, or testing of future growth scenarios. HE seems to be taking the lack of debate on these matters in previous years, and the passing of the scheme into its investment strategies, as being sufficient evidence that these matters have been dealt with. The recent experience of the A303 scheme suggests that this is not a safe assumption, where the High Court found that the options appraisal was insufficient to demonstrate that sufficient consideration had been given to the assessment of alternatives in relation to its impact on the historic environment.

### **LTC Scheme Configuration, including A13 Junction**

- 2.6.4 Evidence has been sought from HE as to the justification for the A13 junction and its configuration. In recent correspondence, HE has suggested that any options appraisal should be proportionate. The Council agrees with this position; however, it contends that significance of the impacts on the landscape of Thurrock, and the consequential impacts relating to property, severance, traffic delay and congestion, health, air quality, noise, accessibility and economy, (both in the temporary construction stage and permanent operational condition), means that there is a significant burden of proof resting with HE to justify the selected scheme design.
- 2.6.5 HE published '*Approach to Design, Construction and Operation*' in July 2018. This provided some commentary about the decisions made about scheme design, but there is no supporting

appraisal or modelling work. In particular, the reasons for removing TLR are not considered valid by the Council and seem to have guided HE's approach since that time, even though some reasons are now out of date. This is discussed in more detail in Section 2.8.4.

- 2.6.6 In March 2020, and again in June/July 2021, the Council has requested evidence of the alternative options tested by HE to determine the DCO configuration. The Council has suggested a number of alternatives for testing, including:
- i. LTC with a Tilbury Link Road.
  - ii. LTC without connection to the A13 and with a Tilbury Link Road.
  - iii. With major improvements including grade separation at ASDA roundabout.
- 2.6.7 Whilst some progress has been made on developing suitable models for testing these alternatives over the last 18 months, this work has not been completed, and HE has not supplied detailed evidence of any testing of alternative LTC configurations they might have undertaken in assessing that the optimum scheme has been selected.
- 2.6.8 In its note '*Lower Thames Crossing A13 Junction Design Approach May 2021*', HE states that an options appraisal has been undertaken as part of the preferred route selection. However, the HE note focuses more on the reasoning behind the design choices made through the iterations of the interchange at A13, rather than the reasoning for the interchange and the comparative review of alternative scheme configurations. This does not help the Council to reach a conclusion about the performance of the current scheme when compared to alternative configurations. Whilst the HE team has committed to set out its plan for providing more information on traffic flows on critical links, this information has not yet been provided.
- 2.6.9 The Council therefore continues to believe that insufficient evidence has been provided to allow stakeholders to take a view about the performance of alternative options, specifically related to the configuration of the LTC scheme now subject to the current non-statutory consultation and its very significant impacts on Thurrock and its local community. Furthermore, the Council has significant unresolved concerns that the configuration is safe or indeed can be delivered within the current Order Limits, when allowing for the many signing gantries and safety fencing and barriers, which will be required to mitigate the poor layout of the linkages and connections within the interchange.
- 2.6.10 HE, at Table 1 of its Technical Note of May 2021, repeats that the proposed interchange with A13 assists with achieving the stated objectives of the LTC project. It asserts that the proposal '*supports sustainable local development and regional economic growth*'. The Council does not agree that the interchange achieves this and indeed it is the Council's view that the proposed arrangement sterilises land within the Borough without assisting connections. The proposals are almost entirely about strategic benefit without supporting local growth, sustainable local access and connectivity, or the transport decarbonisation agenda.

### **Options to Enable Growth (and reduce impacts)**

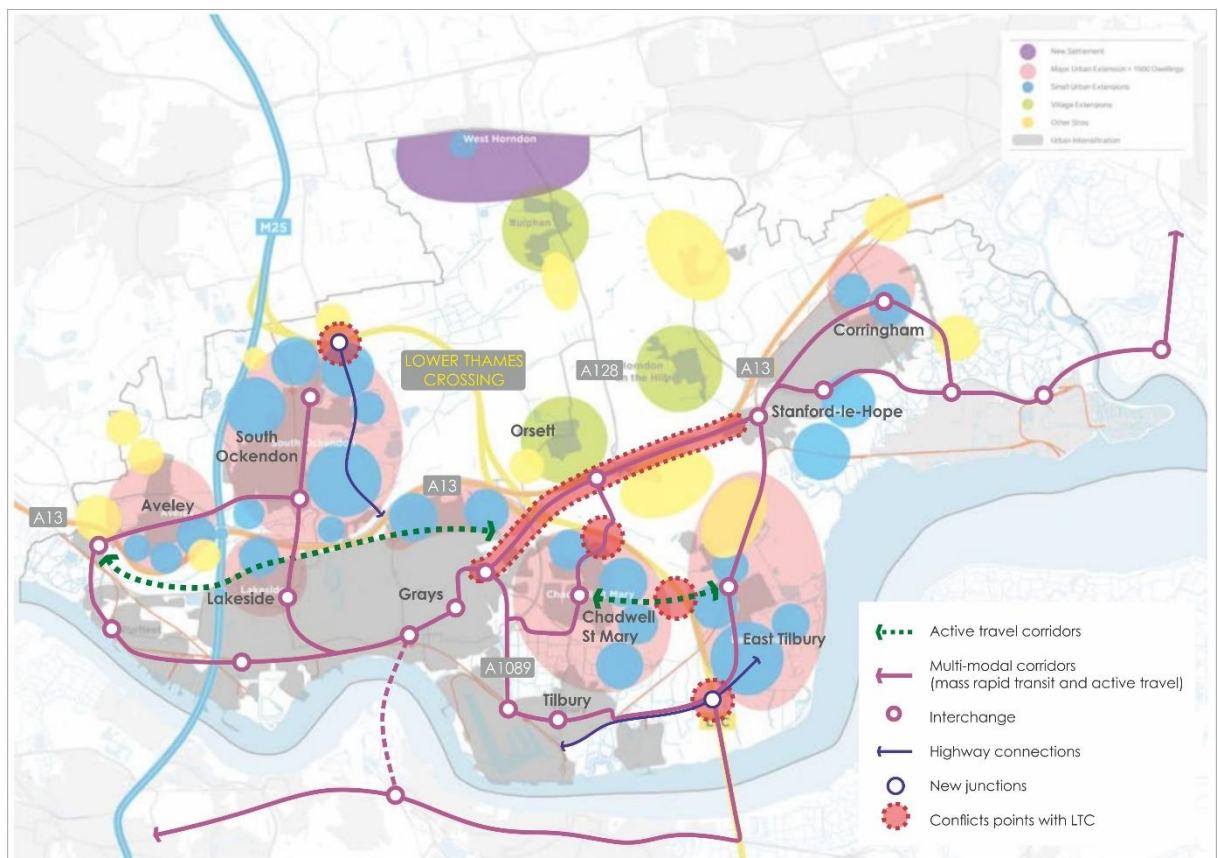
- 2.6.11 The Council's Issues and Option Stage 2 of the emerging Local Plan process has identified a number of possible growth areas. Those which are directly affected by LTC are: Tilbury, East Tilbury, Chadwell St Mary and South Ockendon. The LTC either severs or impacts access to the land available for the provision of homes and jobs in these locations, but there are opportunities to deliver improved connectivity which would help to facilitate this growth, and the Council have been seeking to ensure that these are considered, safeguarded and implemented. The opportunities that have been discussed with HE include:
- i. The provision of a junction and link at **Tilbury** for:



- a. Multi-modal access to the Tilbury Growth Area via Tilbury Link Road, and potentially Chadwell St Mary Growth Area.
- b. Multi-modal access to East Tilbury Growth Area.
- ii. Public transport access (if TLR not delivered early) and crossing of the LTC at **Brentwood Road** (Chadwell St Mary).
- iii. **A1013** bus priority.
- iv. A future junction at **South Ockendon**, to provide access to growth locations.

2.6.12 **Figure 2-1** below illustrates the primary opportunities for access of network enhancements in support of the delivery of growth in Thurrock.

Figure 2-1: LTC Conflict (or Opportunity) Points with Thurrock's Emerging Transport Vision to Support Sustainable Growth



- i. **Tilbury junction and TLR** – see Section 2.7 below. It should be noted that whilst the Council objected to the provision of a Rest and Service Area (RaSA), it did not object to a Tilbury Junction. Thurrock Council was promoting it, this position is contradicted by the contention in the ‘You Said We Did’ document to the contrary.
- ii. **Brentwood Road Public Transport Access** – a Report titled ‘*Lower Thames Crossing – Public Transport Opportunities*’, dated June 2021 provides concepts for achieving connectivity between LTC and the LRN within Thurrock, to facilitate public transport connection along the LTC to complement the opportunities for movement across the river for employment and other purposes. It should be noted that HE has rejected these proposals (reasons awaited). The Council is of the view that the LTC proposals are deficient unless public transport is provided, either via the TLR or an alternative.

- iii. **A1013 bus priority** – the LTC results in increased traffic along the A1013 and the consultation documentation confirms that bus services along this route will be adversely affected by longer journey times. A first stage of bus priority has been proposed on the west bound approach to Daneholes Roundabout. HE has committed to fund necessary feasibility work but there is no commitment to delivering the scheme.
  - iv. **South Ockendon** – The design of LTC and associated infrastructure should be managed so as to not hinder growth and facilitate opportunities to help growth. It is the Council's view that an interchange between North and South Ockendon should be confirmed as acceptable passive provision and the LTC should be configured not to obstruct that aspiration.
- 2.6.13 The Council has requested LTAM model runs to include the provision of the TLR, its connection with LTC, and a junction at South Ockendon. To date, this information has not been forthcoming, not have models been provided that would enable the Council's consultants to undertake tests of these options in support of the development of the Local Plan.

## Summary

- 2.6.14 In summary, the Council therefore believes that the appraisal of the scheme and alternatives for the route north of the River Thames thus far is wholly inadequate in the context of the substantial impact on the communities of Thurrock. The Council does not think it unreasonable to expect that HE should be able to present its appraisal of the scheme alternatives: the design of the A13 junction, TLR, connections with local junctions, provision for local growth, connections with active travel and public transport modes.
- 2.6.15 HE has proposed a plan to work through these issues with the Council, but as yet, no programme for this work has been agreed (refer to paragraphs 2.9.9 - 2.9.10 below for further details). Without this information, the Council considers that there is insufficient information on which to make judgements about preferred options, and the balance between strategic highway requirements, substantial local transport and associated impacts, (including air quality, noise, severance, etc) and any benefits to the local community.
- 2.6.16 The Council will provide a response separately to HE on the A13 technical note (received in May 2021) and will continue to seek evidence to justify why the interchange proposed was selected and configured in such a way which sterilises a large swathe of land within Thurrock, whilst other proposals aimed at providing benefit for local access and public transport are not being considered further.

## Local Impacts & Benefits

### 2.7 Lack of local benefits and limited ability to help the emerging Local Plan, especially limited local connectivity and sterilisation of development opportunities in sustainable locations

- 2.7.1 There is a lack of secured benefits for existing communities and future growth in Thurrock and key strategic issues remain outstanding, as set out in the Council's response to the Ward Summaries (**Appendix G**), Operation Update (**Appendix H**) and other LTC technical and core documents, and as explained below.
- 2.7.2 LTC will have long-term impacts and 6-8 years of construction disruption that may or may not be adequately mitigated. There is a lack of real benefits for Thurrock from LTC, in terms of provision of open space, increased local road and PRoW connectivity, active travel, investment, and legacy in terms of local regeneration. Lack of local benefits and securing lasting legacy has been previously raised by the Council in the responses to LTC Statutory Consultation (10 October – 20 December 2018), LTC Supplementary Consultation (29

January – 9 April 2020) and LTC Design Refinements Consultation (14 July – 12 August 2020).

- 2.7.3 HE needs to secure DCO benefits to ensure a lasting beneficial legacy – covering community infrastructure, environment, health and wellbeing and opportunities for local employment, apprenticeships and training programmes. Paragraph 4.3 of the NPSNN sets out:

*'In considering any proposed development, and in particular, when weighing its adverse impacts against its benefits, the Examining Authority and the Secretary of State should take into account: its potential benefits, including the facilitation of economic development, including job creation, housing and environmental improvement, and any long-term or wider benefits; and, its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.'*

- 2.7.4 Benefits need to be legally secured in the DCO or in separate Agreements. Resolutions of some issues require a more robust approach to the mechanisms needed to secure mitigation and other measures, i.e. mitigation and other measures need to be legally binding, through obligations, Agreements or independent monitoring and verification of control documents such as the CoCP, Travel Plans, or wider network improvements. For example, in the West Midlands Rail Freight Interchange Order 2020, the following was secured by way of section 106 agreement:

- i. The creation and operation of a community fund.
- ii. The setting up a of community liaison group.
- iii. Travel plans to encourage the use of sustainable modes of transport.
- iv. Approval and implementation of a series an Employments, Skills and Training Plan.
- v. A financial contribution to the improvement of the Local Wildlife Sites.

- 2.7.5 Concern of the emerging Local Plan and its interface with the proposed LTC was identified in the Council's response to the LTC Statutory Consultation (10 October – 20 December 2018), LTC Supplementary Consultation (29 January – 9 April 2020) and LTC Design Refinements Consultation (14 July – 12 August 2020). The Council's concerns raised during the three previous rounds of public consultation are summarised below:

- i. Statutory Consultation – the Consultation Scheme does not make provision for, and is inconsistent with, the housing and development potential for Thurrock and the aspirations for the Borough and for the wider South Essex area as set out in the emerging Local Plan. The Consultation Scheme does not meet several of the national and HE's strategic policy tests and scheme objectives, particularly relating to option testing, the delivery of economic growth and achieving sustainable local growth;
- ii. Supplementary Consultation – the proposed LTC does not make provision for, and is inconsistent with, the housing and development potential for Thurrock and the aspirations for the Borough and for the wider South Essex area as set out in Thurrock's emerging Local Plan and South Essex Joint Strategic Plan. Specifically, there are design elements which require modification and/or further consideration by HE in order to contribute to meeting the Government's and LTC's policy and scheme objectives. The scheme would have significant economic costs on residents and businesses in the Borough, principally due to direct loss of land, disruption to access and movement in the Borough and the creation of blight across the LTC corridor;
- iii. Design Refinements Consultation – the proposed LTC does not make provision for, and is inconsistent with, the housing and development potential for Thurrock and the aspirations for the Borough and for the wider South Essex area as set out in Thurrock's emerging



Local Plan and South Essex Joint Strategic Plan. To this end, the Council will require on-going and transparent updates from HE on both the construction and operational programme for each phase of the LTC. Specifically, there are design elements which require modification and/or further consideration by HE in order to contribute to meeting the Government's and LTC's policy and scheme objectives.

- 2.7.6 The Council's concerns have not been addressed and remain unchanged. As a result, the current LTC scheme does not deliver on HE's own scheme objectives **'to support sustainable local development** and regional economic growth **in the medium to long term'** or to *'minimise adverse impacts on health and the environment*.
- 2.7.7 The Thurrock Council Local Plan (Issues and Options Stage 2 – December 2018) sets out the proposed future growth options for broad locations for employment land (page 79) and housing (page 57, which includes the Port of Tilbury, Chadwell St. Mary, East Tilbury and South Ockendon). The Issues and Options Stage 2 of the Local Plan identifies major future growth, with the majority in the Green Belt, circa 259 hectares for new employment land, future port development and 23,000 - 32,000 new homes, along with attendant social infrastructure. This Issues and Options Stage 2 Report was approved for public consultation by full Council in December 2018 and established a preferred pattern, locations and broad scale for sustainable growth. LTC would result in strategic issues for existing communities, employment areas and ports, as well as for future growth in Thurrock, as set out in various Appendices to this report and below. Furthermore, the Issues and Options (Stage 2) acknowledges that the LTC *'threatens to significantly undermine the Council's plan to meet its housing needs and support economic growth'*, by sterilising development opportunities, providing poor connectivity and not adequately mitigating impacts across its land take – particularly west of East Tilbury, north and east of Chadwell St Mary, around the A13 junction and north and east of South Ockendon.
- 2.7.8 The Council is aware that one of the main employment areas for future expansion to the east of the Port of Tilbury conflicts with the current proposals for 'Tilbury Fields'. This is currently proposed for the deposition of excavated material and the subsequent creation of a future open space in the form of parkland with ecological value. It is essential that this conflict is resolved prior to DCOv2 submission so as not to hinder the commitments to deliver Freeports. It is equally important that any reduction in the size of the currently proposed Tilbury Fields does not reduce the overall provision of publicly accessible open space. The Council will be proactive in supporting HE and the Ports in resolving this current conflict.
- 2.7.9 As detailed in the Council's Response to the LTC Supplementary Consultation, progress on the emerging Thurrock Local Plan has already been significantly delayed by the uncertainty created by the proposed LTC. Whilst the emerging Local Plan can progress through the Regulation 18 and Regulation 19 stages, it will be challenging to submit the Local Plan for Examination until such time as there is certainty that a final decision has been made on the route/location and configuration of LTC, i.e. Regulation 20.
- 2.7.10 Nevertheless, the Council will proceed with a 'shadow' Local Plan towards the Examination stage, so as to confirm the ways in which the LTC would compromise the strategic and sustainable development of the Council in the future, at least without mitigation or avoidance measures. It is currently intended for the Council to provide at least the Regulation 18 version by mid-2022 for consultation and prior to that a revised Local Development Scheme setting out the Council's timetable for producing the new Local Plan will be published.
- 2.7.11 In principle, LTC presents, along its route, an opportunity to support and enable growth in sustainable locations, particularly in East Tilbury, Chadwell St March and South Ockendon. However, this is based on the appropriate alignment of LTC and, critically, local access. Without confirmation of support on additional junctions (Tilbury, South Ockendon and Tilbury Loop Line Overbridge and approach roads), wider network improvements, public transport provision and the provision of more and better WCH facilities (see Section 2.12 of this report)

LTC will hamper future growth in Thurrock due to the severance of, or impacts on, the land available for the provision of homes and jobs in these locations.

- 2.7.12 Issues for existing communities and future growth are set out in our response to Ward Summaries (**Appendix G**) and other relevant responses to LTC technical and core documents. Key strategic issues are set out below:
- i. Without guaranteed delivery of South Ockendon/TLR junctions or LRN mitigation schemes, there is no certainty that LTC will support connectivity, sustainable local growth and the emerging Local Plan.
  - ii. Poor local connectivity and a failure to explicitly plan for and design a scheme with the objective of supporting the delivery of economic growth (jobs/employment/port expansion) and homes.
  - iii. The need to address the impact of noise, air quality, severance and flood risk considerations which has led to an increase in land take in certain locations thereby further reducing the supply of land for development.
  - iv. Greater emphasis should be placed on active travel and public transport, as set out in **Appendix G**. The scheme provides enormous opportunity to enhance active travel and public transport the local level, which improves health and the environment, and mitigates against a range of adverse impacts such as air/noise pollution and relieving congestion.
- 2.7.13 There is also concern of cumulative impacts from other large-scale developments in the local area, which would result in increased impacts of additional traffic movements on the LRN, as well as on Junction 30 of the M25.

### **Junction 30, M25**

- 2.7.14 The difficulties that the Council has been experiencing in trying to work with LTC have been paralleled with similar problems being faced in dealing with HE in relation to two major planning applications for development in Thurrock, which are the subject of holding objections based on concerns over the impacts of additional traffic movements on Junction 30 of the M25.
- 2.7.15 As a result of this planning permission for the development of 2,800 new homes, a new town centre, health facilities, primary and secondary schools, 135,000sqm of television and film studios, together associated transport infrastructure and public realm works on brownfield land at Purfleet is currently being held in abeyance.
- 2.7.16 In addition to this, HE is also objecting to proposals for the redevelopment of land at the former Arena Essex site on land north of Lakeside and the A13 for a further 2,500 new homes and associated community and leisure facilities for the same reasons as at Purfleet. Despite being asked to do so, HE has so far failed to identify what mitigation or interventions are required at Junction 30, in order to allow the proposed development of these sites proceed.
- 2.7.17 Alongside the need to ensure that the LTC scheme helps open new development sites, resolving the issue of a lack of capacity at Junction 30 of the M25 presents a major challenge, which will need to be addressed before the Council can make substantive progress on the new Local Plan. Because Thurrock is essentially a linear Borough with all traffic, rail and freight movements focused east-west along the A13 and Thurrock Thameside rail corridors, and north - south on the M25 via Junction 30, the ability of the Borough to accommodate future development will be largely contingent on both the need to manage-down traffic growth and provide additional capacity and resilience on the SRN and rail network serving Thurrock and South Essex as a whole. Until such time as there is an agreed solution to the Junction 30 and the LTC local connectivity issues, it will remain difficult for the Council to progress the new

Local Plan as the capacity of the strategic transport networks running through the Borough will act as a significant constraint on Thurrock's ability to meet future housing and employment needs.

- 2.7.18 Given the probable cost of the transport infrastructure improvements required which might involve a new Junction 30 costing £160 million (previous scheme estimate) and new junctions likely to be required at South Ockendon and East Tilbury, it is unlikely that value generated by local development will be sufficient to cover the cost of the improvements required without it being rendered unviable. Reflecting this, there is therefore an onus on Government as a whole to assist in funding the necessary delivery of the transport upgrades required to support the new Local Plan. Equally, if this is not considered deliverable, then both the Government and the Council will need to give further consideration as to what this means in terms of the new Local Plan and the ability of the Borough to meet its ambitious growth targets.
- 2.7.19 The Council's current spatial strategy assumes the development of the LTC in basically its current form, together with the provision of additional junctions and link roads, and other transport interventions as part of a combined LTC/A13 and J30 M25 package to meeting growth needs. In order for this option to be successful it requires the Government to look again at the design of the scheme and consider how its design and routing could be amended to deliver wider government objectives, including housing and economic and housing growth. Also required is a cross Government commitment to the funding and delivery of all necessary supporting infrastructure early in the process.

## 2.8 Tilbury Link Road (TLR)

- 2.8.1 Originally, the TLR was included in the DfT's non-statutory consultation, which closed in March 2016 and then it was included in the HE Scoping Report for the LTC scheme submitted to the Planning Inspectorate in late 2017. Subsequently, the TLR has not been included in any Consultation proposals. The rationale for its removal was set out in HE's 2018 report *'Approach to Design, Construction and Operation'*, however, no supporting evidence has been provided in those consultation materials, or since. This is despite the Department of Transport's April 2018 report *'England's Port Connectivity: the current picture'* (it covered 9 regional case studies) confirming that LTC is expected to offer new connections, as well as improved journey times and network reliability and it includes a junction for Tilbury Port. It was preceded by the DfT's *'Study of England's Port Connectivity'* in 2017.
- 2.8.2 DfT published its follow up research report entitled 'The Provision of Research Support for the International Gateway Study' in October 2018. It stresses the need for connectivity to such major gateways as Port of Tilbury and highlights current deficiencies and stresses the importance of 'last mile' connectivity.
- 2.8.3 Despite these studies and the national need for Port connectivity the LTC scheme has not included the TLR in its developing proposals since 2018, which is inexplicable. Currently, access to the Port of Tilbury is solely via the A1089, an SRN. Currently, the DfT's RIS2 included the TLR (for feasibility/Business Case work), as just a RIS 3 pipeline scheme (Ref. No. E32).
- 2.8.4 Within the HE Statutory Consultation in 2018, the reasons for not including the TLR were set out at paragraph 15.2.6 in the *'Approach to Design, Construction and Operation'*. The reasons given and the Council's opinion on those reasons are set out in **Table 2-1**:

Table 2-1: Tilbury Link Road – HE's Position at Statutory Consultation 2018 and the Council's Opinion

<b>HE Position at Statutory Consultation 2018 - The Tilbury Junction and Link Road</b>	<b>Thurrock Council's Position</b>
<p>a. <i>"Although a link road to Tilbury2 and Tilbury has some benefits in providing additional connectivity, it also has significant environmental impacts, including impacts on ecological sites and heritage sites, particularly Tilbury Fort."</i></p>	<p>The option appraisal carried out to determine this reason for the removal of TLR has not been provided. This should be made available.</p> <p>HE has now committed £5 million to take the scheme forward in Road Investment Strategy (RIS) 2 for RIS3, with Strategic Outline Case being progressed in Q4 20/21 to Q2 21/22, as reported by HE in meetings with the Council. This is therefore contrary to the reason stated in 2018 and therefore considered out of date. In any case, the options appraisal and design of the link should seek to minimise and mitigate any environmental impacts. Given the area is allocated for future employment use and is currently being developed for those uses, the environmental impact will need to be managed in any case.</p> <p>An informed and balanced view should be taken by all parties.</p>
<p>b. <i>"Traffic modelling highlighted several drawbacks with the link road design including unnecessary delays to HGV journeys and significant impacts on the local road network."</i></p>	<p>The supporting modelling work associated with any options appraisal for the TLR has not been provided or published as evidence to support this reason. HE must share its appraisal of these assertions and provide evidence as to the balanced assessment of the effects.</p> <p>HE (verbally) referred to the consideration of TLR which connected to local roads (i.e. Fort Road). If this was the only option considered (note: no evidence is available to ascertain this), then the Council would not necessarily suggest this as an appropriate configuration, as this may have caused local network problems. The Council's view is any impacts on the local roads could be resolved through a more informed approach to the link road configuration.</p> <p>With regards to the delays on HGV journeys and with the absence of any evidence on the options appraisal, it is the Council's opinion the TLR would improve HGV journeys through shorter journeys to Tilbury and improved reliability due to the choice of river crossings to Tilbury.</p>
<p>c. <i>[format error, bullet was missed from the document]</i></p>	<p>No response.</p>
<p>d. <i>"We consider this is the most suitable location for an RaSA (see section 12.5)."</i></p>	<p>The Rest and Service Area was opposed by the Council in isolation from the consideration of the connectivity between LTC and the TLR, which the Council supported. The consideration of the RaSA is not justification for the removal of the link road proposal.</p>
<p>e. <i>"The link road would be located entirely in the flood zone and would require the provision of a significant"</i></p>	<p>This matter is a design consideration that should be taken into account when designing the proposals and in balance with other aspects. The need for compensation storage is not a reason alone to remove the link road.</p>

HE Position at Statutory Consultation 2018 - The Tilbury Junction and Link Road	Thurrock Council's Position
<i>additional flood storage compensation volume."</i>	
<p><i>f. "The link road would not be compatible with the Tilbury2 DCO application which envisages road traffic from the port using the existing A1089. We consider that it is more appropriate to maintain the existing strategic free-flow connections between the A1089 and A13 rather than providing an alternative access. (See section 15.4)."</i></p>	<p>The Port of Tilbury management company is known fully to support the delivery of the TLR. This reason is therefore either incorrect or out of date.</p> <p>The Council and the Port of Tilbury management company are aligned in the intention to thoroughly examine options for the delivery of the link road, which can take account of the emerging Port of Tilbury 2 and future expansion proposals.</p> <p>HE, the Council and other stakeholders have acknowledged that the A1089 (SRN) corridor, specifically the ASDA roundabout, is at or reaching its full capacity in peak periods, and with the currently projected growth (including Thames Freeport) would need significant investment in the near future to resolve operational difficulties.</p> <p>It is the Council's view that TLR would provide an attractive solution to support growth in the Tilbury/Port area, as there is limited scope for low cost improvements at ASDA roundabout. It would also help to provide relief for the A1013 Marshfoot Road route, which LTC relies on for traffic accessing the Port.</p>

2.8.5 These reasons are not considered valid by the Council but seem to have guided HE's approach since that time, even though some reasons are now out of date.

2.8.6 It is clear that access to the Port of Tilbury, once the LTC scheme is completed and operational, will be circuitous from the LTC north and southbound. The routes vary but in order to access the Port from LTC, traffic would need to go either via the Orsett Cock Roundabout (along the A1013 to Daneholes Roundabout, via Wood View and Marshfoot Road to join the A1089), through Chadwell St. Mary (along Brentwood Road, via Marshfoot Road to join the A1089), U-turning at Manorway Roundabout (back along the A13 to the A1089) or use the existing Dartford Crossing. Routes from M2 Junction 1 to Tilbury are shown in **Figures 2-2 to 2-4 below**.



Figure 2-2: Route 1 from M2 J1 to the Port of Tilbury

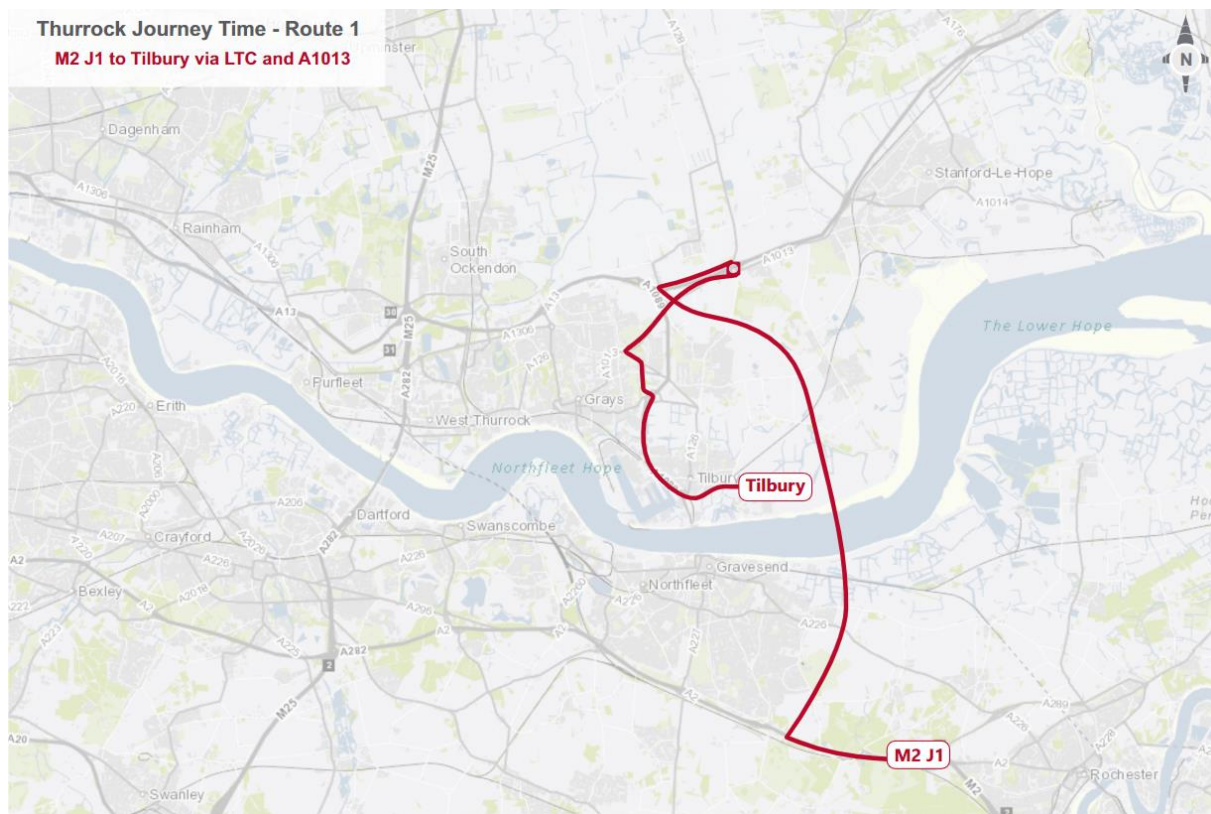


Figure 2-3: Route 2 from M2 J1 to the Port of Tilbury

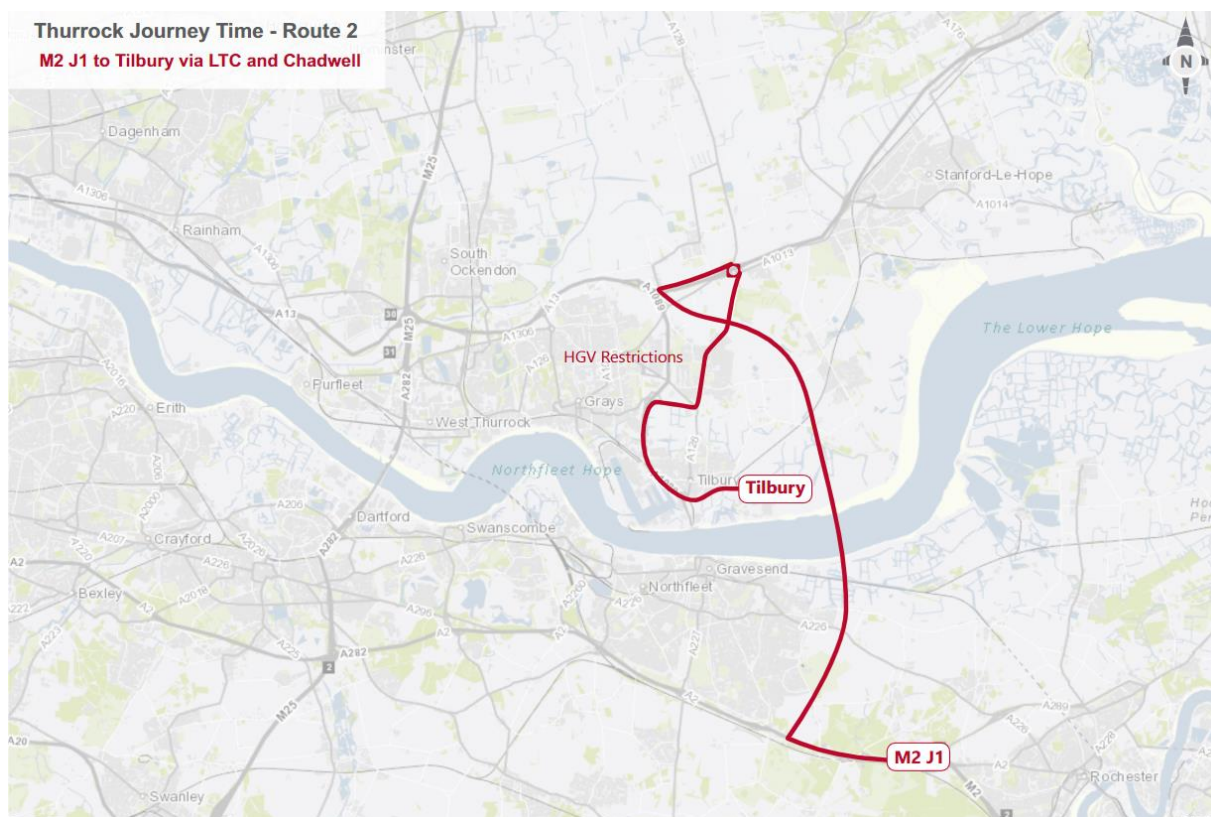
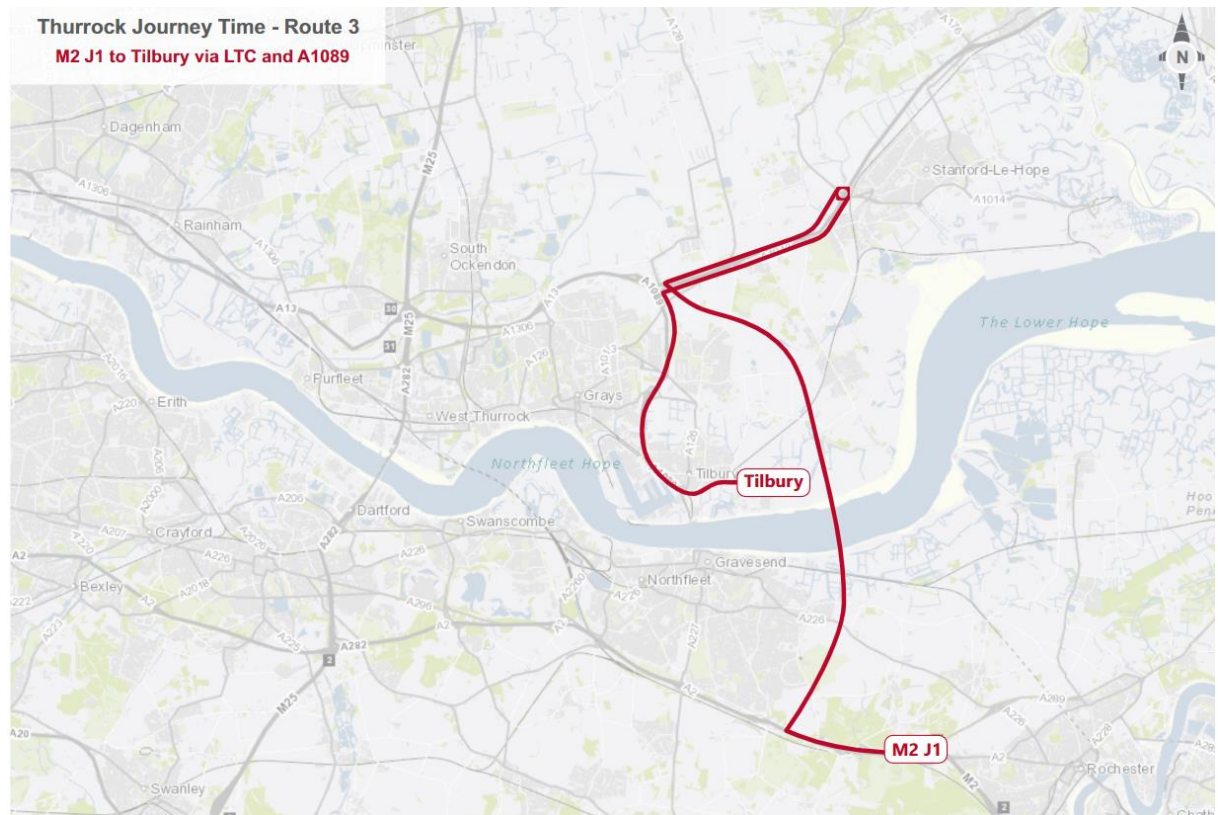


Figure 2-4: Route 3 from M2 J1 to the Port of Tilbury



- 2.8.7 The local A roads and unclassified roads/junctions are not designed to accommodate these increases in traffic and/or HGV traffic. There are safety, air quality and noise concerns relating to increasing traffic and HGVs, particularly related to the schools, residential dwellings, and local bus services along these routes.
- 2.8.8 The timing of the routes from both directions would involve a journey time of approximately 25-30 mins and 31kms, whereas using the TLR would take just 10-11 mins and 13 kms.
- 2.8.9 In view of the non-inclusion of the TLR within the current LTC scheme, then it becomes necessary to find ways to accelerate its delivery before RIS3 using DfT's funding and delivery mechanisms. There are three very important reasons for doing this with the assistance of both HE and the LTC scheme team:
- i. It is a missed opportunity to remove HGV traffic to/from PoTL from the LRN, by providing the TLR, avoiding reliance on unsuitable local roads where there will be significant risk of accidents and air quality and noise impacts. Currently the A1089 and the ASDA Roundabout are used by multiple users often with resulting delays and congestion.
  - ii. It is a missed opportunity to assist with the realisation of Thames Freeport, the planned growth of the Port of Tilbury and the expansion of DP World; and, the delivery of Thurrock's emerging Local Plan's employment and housing growth, which will deliver traffic increases, not currently considered by LTC's traffic modelling.
  - iii. TLR's delivery is fundamental to support Thames Freeport and ensuring that there is a deliverable strategy to avoid unnecessary impacts of HGVs accessing LTC on local communities.
- 2.8.10 Thames Freeport is an economic zone connecting Ford's world-class Dagenham engine plant to the global ports at London Gateway and Tilbury, with an emphasis on introducing electric



and autonomous vehicle technology along the A13 corridor into London. Freeports are areas of operational and development land linked to a port where normal tax and customs rules do not apply. A modern UK Freeport can comprise a mixture of digitally linked, discreet customs and tax sites. The policy seeks to create innovation hubs which boost global trade, attract inward investment and increase prosperity in the surrounding area by generating employment opportunities. At a Freeport, imports can enter with simplified customs documentation and without paying tariffs. Freeports are a place-based policy similar to enterprise zones. These designated areas are subject to a broad array of special regulatory requirements, tax breaks and Government support.

- 2.8.11 On its website ([www.thamesfreeport.com](http://www.thamesfreeport.com)), it is stated that the Freeport can secure more than £1 billion in new port infrastructure and more than 25,000 new direct and indirect jobs on its estate. Furthermore, new inward investors will benefit from global connectivity to every continent; first-class onward road and rail connections and marine services; and skills development, innovation and automation services; alongside well-honed investment promotion and trade facilitation. Within its estate, the London Gateway has almost 10 million square feet of land with planning consent. While Forth Ports is completing its latest major expansion to its footprint at Tilbury2, with nearly 400 acres of land being prepared for development. The first substantial plot will be ready in Q3 2021. Ford Dagenham and the Thames Enterprise Park development site cover in excess of 1,700 acres.
- 2.8.12 Thames Freeport has many partners – DP World, Ford, most local authorities in the area, its constituent partners and other key stakeholders. Clearly, it is vital that major infrastructure projects support the further development of the Thames Freeport, avoids any unnecessary impacts on land available for port development, and that the TLR offers that critical opportunity to offer direct access to the Port of Tilbury and the adjacent employment zone and relieve local roads. It is essential that port connectivity does not become a constraint of the growth of port related uses. Clearly, HE must work with the Council and the Thames Freeport in accelerating delivery of the TLR. The views of Thames Freeport and the Council relating to the TLR and accommodating its expansion align and this has been achieved through regular discussions with the Port of Tilbury (PoTL), Forth Ports and DP World.
- 2.8.13 The LTC scheme should offer adequate provision for the future growth of the Thames Freeport, as a key part of Government policy. It is clear that there are two key and inseparable issues where the current LTC proposals impact on the Thames Freeport and significantly constrain its future development: i) The conflict at Tilbury Fields and; ii) The lack of provision or firm commitment for the TLR. Dealing with each in turn, the Council support the inclusion of the western part of Tilbury Fields into the Freeport area and will work with both HE and Thames Freeport to amend the LTC scheme to allow for a suitable alternative area for spoil deposition and open space creation, with adequate PRoW provision. With regards to the TLR, it is the Council's firm view that this should be included within the LTC scope and brought forward as part of the LTC DCOv2 scheme. It should be noted that full financial provision for the TLR is covered within the Freeport Outline Business Case. If not included within the LTC scope, then there must be a firm legal commitment from HE/DfT for its provision during the Road Investment 2 (RIS2) period, ensuring that the necessary funding envelope is put in place to provide the investment needed to deliver TLR, given its crucial role in facilitating the delivery of Freeports.
- 2.8.14 An interim measure for the LTC scheme would be to legally commit to 'passive provision' for the future Tilbury Junction and South Ockendon junction, i.e. the zone should be committed to be left clear and there not being any obstructions from major earthworks, significant utility diversion routes or equipment and no significant permanent structures or features (such as bridges, balancing ponds and other structures). Unfortunately, HE has 'watered down' both the definition proposed by the Council and has excluded the proposed balancing pond at Tilbury from the definition. There is also no zone provision on Plans for Approval and the HE has offered no legal securing commitment for passive provision. The relocation of the balancing pond will result in a substantial additional cost of approximately £2m for any future link, detrimentally impacting on the public purse and business case for the future scheme.



Additionally, this does not provide for the required support for the Freeport or the development of its adjacent employment zone and will be viewed as short-sighted in the immediate future.

- 2.8.15 Because HE has refused to provide within its DCOv2 an adequate definition, clear zonal plans or any securing commitment, the financial burden for the costs or costs of balancing pond removal will pass to either DfT or the development industry in such provision. Furthermore, it is vital that DfT accept the principle of these two junctions on its new strategic road (LTC), otherwise any future provision may be subject to an in-principle objection from DfT, without the supporting technical and modelling work necessary to justify their viable provision. NPPF paragraph 106 is important in this regard, i.e. the Council will need evidence to demonstrate the means of delivery of this connecting infrastructure, such that there is a reasonable prospect of such infrastructure provision coming forward, including the anticipated means of funding and its timing.

## **2.9 Effects on local roads and junctions (plus Wider Network) – unmitigated**

- 2.9.1 The Lower Thames Area Model (LTAM) is a strategic transport planning model, using the SATURN software package, and was created to represent the transport system in the Lower Thames Area as it was in March 2016. This model was accepted by HE as suitable to assess the LTC project. Forecast year models have been developed to test the effects of the LTC operation and construction phases on the strategic road network. HE has not provided local model output as evidence of the effects on the LRN, therefore LTAM has been used for this purpose.
- 2.9.2 The Council has been engaging with HE since 2018 on the reliability and accuracy of the LTAM, particularly regarding to the local road performance, including key junctions, such as Orsett Cock and The Manorway on the A13. Cordon models of LTAM covering only Thurrock Borough (not including any network south of the River Thames) have been provided to the Council for analysis of both the local roads and HE's Strategic Road Network.
- 2.9.3 Despite ongoing engagement with HE regarding the LTAM model and in the absence of any more detailed evidence, such as local junction modelling, the Council continues to have unresolved concerns. It is the Council's view that the model does not reflect the local network peak hour traffic flows in the morning; that it does not validate (compare) well with the observed traffic flows on key parts of the LRN; and that it is not a suitable tool for assessing the detailed operation of key junctions and areas of the network that are under significant pressure. The Council has requested a series of adjustments; alternative tests and for more detailed local analysis to better understand the effects of the scheme and provide comfort that the local network can accommodate the changes or management will be in place to avoid adverse impacts. HE has not yet agreed or responded to the Council's requests.
- 2.9.4 No local road traffic counts (except on the A13) have been used to calibrate or validate the model. The model is also based upon the strategic road network peak in the morning, rather than the local network peak. A comparison of the model flows compared to observed flows undertaken by the Council which shows that, in general, the traffic flows output from the LTAM modelling are low on local roads in the base year model in comparison to the observed traffic flows, and in particular, low on the A1013; links near Orsett Cock; on A1014 The Manorway; and A1089 near the ASDA roundabout.
- 2.9.5 LTAM is based on traffic data originally sourced in 2016. Since then, there have been significant events that have influenced travel patterns, such as the pandemic, and changes in working patterns. Under normal circumstances, base data is considered to be valid for five years. Therefore, we would expect a significant revision to the model being required imminently. We would also have expected sensitivity testing to be undertaken by HE to assess these potential effects. No evidence of this has been presented.
- 2.9.6 The Council has consistently and repeatedly raised concerns at meetings and via representations that the impacts on the local roads and junctions are likely to be

underestimated as a result of the lower level of traffic on the local roads. The Council has reviewed outputs from the Lower Thames Area Model (LTAM), which indicates the main impacts of the LTC on Thurrock's LRN are at (note: we are reviewing the cordon models issued in early August 2021 and reserve the right to comment on any identified issues related to the new modelling):

- i. Orsett Cock roundabout.
- ii. The Manorway roundabout and links in close proximity.
- iii. ASDA roundabout.

2.9.7 Furthermore, additional impacts on the LRN are noted at the following locations:

- i. A1013 (Daneholes roundabout), B149, Marshfoot Road.
- ii. Marshfoot priority junction (with slips to A1089).
- iii. Brentwood Road and Chadwell Hill, Chadwell St Mary.
- iv. A1012/Lodge Lane/Long Lane Roundabout.
- v. Stifford Clays Road.
- vi. A13/A126 eastbound off slip.
- vii. M25 J30 - Mardyke Interchange.
- viii. Devonshire Road/A1012/Hogg Lane.

2.9.8 Given that the strategic LTAM is not validated on the LRN and is, in any case, not a suitable tool for testing detailed operations of specific junctions, the Council is of the view that detailed junction assessments (e.g. micro-simulation modelling, TRANSYT or JUNCTIONS 9) should be carried out at key pressure points on the network, using accurate baseline traffic data for validation, at locations such as: A13 interchange and Orsett Cock, The Manorway roundabout, ASDA roundabout, Daneholes roundabout and Marshfoot Road junction.

2.9.9 The Council has submitted a report titled '*Junction Assessment and Mitigation Analysis*', October 2020, which includes junction modelling with corrections to the baseline traffic levels to reflect observed survey and shows:

- i. The performance of some approaches to The Manorway and Orsett roundabouts will be impacted by the introduction of LTC.
- ii. The off slips from the A13 at both The Manorway and Orsett Cock roundabouts are likely to block back on to the mainline and/or impact on the slip roads from the LTC.
- iii. The LTC causes the performance of the ASDA roundabout to significantly deteriorate.
- iv. Daneholes roundabout is at risk of regularly being used as a rat-run from the LTC, and any more significant use of the A1013 than modelled in LTAM would impact upon not only the traffic, but bus services that operate through the junction.

2.9.10 In only very recent recognition that the Council is concerned about the issues raised above, HE is proposing to undertake a programme of tasks and meetings, starting with the Council's initial concerns raised since Supplementary Consultation in April 2020. HE's proposed a programme to address the issues raised by the Council on 16 July 2021, (over two years after

original concerns raised in 2018, and 9 months after the October 2020 report was originally submitted) covering: (1) 2016 baseline model; (2) identification areas of concern in forecasts; (3) mitigation/interventions; and (4) Local Plan Options. No programme has yet been agreed for this work.

- 2.9.11 The Council has grave concerns that this engagement cannot be completed in advance of the DCOv2 submission and would not provide HE the time to make any changes to the scheme. The Council is unable to comment on those effects until the option testing has been received and reviewed and, therefore, the Council currently remains concerned that the proposals do not recognise the importance of local sustainable growth and connectivity, including for active modes and public transport.
- 2.9.12 The Council has provided its opinion on the scale of mitigation that HE should include to resolve the impacts of LTC at Manorway, Orsett Cock and Daneholes roundabouts. The Council is of the view that the LTAM is not a suitable tool for undertaking assessment of these local traffic effects of LTC and that local simulation models should be prepared, validated and used to assess appropriate mitigation.
- 2.9.13 HE has provided its document '*Wider Network Impacts Management and Monitoring Plan*' (WNIMMP) as part of the Community Impacts Consultation. In the '*Covering Note*' of that document, HE purports to provide a mechanism by which to monitor the impacts of the Project, including on local roads, '*to identify delays and/or any worsening impact on the surrounding local, major and strategic network*'. HE should identify impacts, including those on the LRN, as part of the evidence base for the DCOv2 Examination and not defer this to a later date. There would be no surety that HE would then fund any mitigation, and indeed only identifies unsecured funding sources as part of the WNIMMP. HE must identify the impacts that the scheme is predicted to have and then propose and implement suitable mitigation.
- 2.9.14 In line with its own aspirations to work towards decarbonising the transport network, the identified mitigation could take the form of complementary environmentally sound initiatives, including enhanced public transport connections and provision. These are completely missing from the current proposals.
- 2.9.15 In summary, the Council requests detailed junction assessments (e.g. micro-simulation modelling, TRANSYT or JUNCTIONS 9) to be carried out at key pressure points on the network, using accurate baseline traffic data for validation, at locations such as: A13 interchange and Orsett Cock, The Manorway roundabout, ASDA roundabout, Daneholes roundabout and Marshfoot Road junction. This should inform mitigation and the Wider Network Impacts Management and Monitoring Plan'.

## 2.10 Construction impacts and mitigation

### Overview

- 2.10.1 In the Council's view, certain key themes should run through HE's approach to the construction processes:
- Embedding reduction in carbon use within the construction of the project – through materials use and handling;
  - Optimising the use of efficient, modern and non-fossil fuelled plant and equipment;
  - Ensuring the use of social value principles in procurement;
  - Creating a positive legacy for the construction industry;
  - Protecting the local communities and infrastructure;

- vi. Proactively monitoring and managing the construction process; and
- vii. Mitigating residual effects.

2.10.2 The Council is starting to see some evidence of this thinking coming through in the preparation of a range of construction stage management plans that have been released with the Community Impact Consultation material and the Council has prepared responses on each of the outline or draft documents, as set out in the accompanying Appendices. The Council is not yet convinced, however, that the above themes are fully committed to or will be translated to the contractors by way of being legally secured within the DCO or separate agreements or by governance, leadership, encouragement or incentive.

### **Construction Traffic Modelling and Impacts**

- 2.10.3 To respond to the projections of network impact during the construction phase, the Council needs to review reliable Transport Planning modelling of the effects of the Project. HE provided the Council with the LTAM Thurrock Area Cordon Construction Models in March 2021, and the Council responded with detailed comments in May 2021 (as set out below). Since then, updated construction traffic modelling has not been issued with this consultation material and this is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures.
- 2.10.4 Without this updated evidence, the Council cannot comment fully on the construction impacts. The updated strategic modelling that provides evidence to the Examination must be provided to enable the Council to understand the forecast transport impacts in advance. This should be followed by more detailed modelling and analysis of the construction stages, including but not limited to detailed analysis of the delivery of a resultant A13 interchange and surrounding local roads, which should be presented to the Council for analysis prior to DCOv2 submission. The strategic model is not considered a suitable tool to test the effects on local junctions nor to assess the specific impacts of phases of traffic management which will be required to manage the delivery of the proposals.
- 2.10.5 Our review of the previous construction modelling issued by HE to the Council is included in our report titled *'Thurrock Cordon Model Construction Modelling Review, May 2021'*. We have not yet received any response to this detailed report and have only just received on 27 August 2021 the updated construction traffic modelling data.

### **Traffic Management and Travel Plans**

- 2.10.6 The Outline Construction Traffic Management Plan for Construction (oTMPfC) still only provides a broad range of measures and processes and the Council still believes that it does not provide sufficient detail, certainty or commitment and a clear governance process to give comfort that the temporary traffic management measures will be acceptably controlled and managed or that impacts on the operation of the LRN and local communities within Thurrock, particularly Orsett and Hordon, will be suitably mitigated. The Council does not agree with the current proposals to disapply the Council's network management powers, including the current street works permitting systems and the consenting on temporary Traffic Regulation Orders. The changes would impact on the Council's ability to manage effectively the LRN including works being carried out as part of the delivery of the Project and also works carried out by other major projects and day to day operations on the LRN.
- 2.10.7 The oTMPfC does not set a robust governance regime to which the contractors would work. The oTMPfC should be complemented by a progressive Materials Handling Plan which presses for reductions in the embedded carbon within the handling of those materials and indeed from the manufacture of those materials. That strategy must maximise the use of non-road transport, including marine and rail transport or minimise the use of materials. HE needs to be stronger in its commitments and set the rules within which contractors will procure and

manage materials and then how those contractors manage the working areas and the associated traffic management and logistics. The oMHP was submitted as part of this consultation and the Council's comments are set out in **Appendix B (2)**, however, it does not provide either the commitments or provisions set out above and does not effectively link with the oTMPfC.

- 2.10.8 Complementing the management of materials and equipment must be initiatives to reduce the effects of workforce travel, delivered through the lead of a Framework Construction Travel Plan (FCTP). The Council has provided its view on the weaknesses within the FCTP that HE has presented with the Community Impacts Consultation and the lack of coordination with the Code of Construction Practice (CoCP). The compounds identified for the construction programme are remote and do not readily lend themselves to active travel by workers. This is echoed by HE, where in the CoCP it states that it will only support active travel (walking and cycling) in locations where access is on lit streets. This is acknowledged by the Council, but HE must, therefore, propose alternative environmentally sound access to the working compounds. HE currently proposes significant provision for private car access to the compounds, some accessed along unsuitable roads such as Station Road, Love Lane and Princess Margaret Road.
- 2.10.9 It is not clear how the control plans and the multiple processes and activities set out within them will be managed, coordinated and governed by HE during the implementation process. A more robust approach to the mechanisms to secure mitigation and other measures is needed. Mitigation and other measures need to be legally binding, through requirements, obligations, or agreements for independent monitoring and verification of CoCP, Travel Plans, wider network improvements, etc. overseen by robust governance.

## Environmental Impacts

- 2.10.10 Generic non-specific ward information is coming through into the Ward Summaries from technical and other documents. However, it does not provide the level of granularity to inform ward level impacts relating to health and wellbeing of local residents and to determine what mitigation is required to support and protect the health and wellbeing of local residents. Health inequalities are mentioned, but there is no clear information about what mitigation will be employed to reduce these inequalities.
- 2.10.11 Reference is made to changes in air quality, noise and other environmental factors as temporary but there is no clear definition of temporary in the context of the project, especially as overall construction of the project lasts for 6-8 years. This should be made clearer to allow the Council an informed understanding of potential impacts.
- 2.10.12 Air quality is discussed within section 7.5 of the Construction Update. The figures presented focus only on changes to traffic movements and HGV movements and offer no information on changes in air quality as a result of the construction itself, only the traffic movements. It is not providing the total picture on air quality changes during construction and relies on the temporary nature of the changes to categorise impacts as unlikely to be significant.
- 2.10.13 Currently only indicative impact predictions are available in respect of construction noise (as charted graphically in the Ward Impact Summaries) and these are based on earlier versions of the project. The revised opening year and traffic management arrangements, together with a requirement for further modelling, mean that quantitative predictions may vary, possibly significantly, and it is stated an update will not be available prior to DCOv2 application (Chapter 7.5 - Recent updates to our environmental assessments). The Council would request that quantitative construction noise impacts are made available sufficiently prior to DCOv2 submission to enable analysis by the Council and feedback discussed, with any consequential changes to mitigation delivered.
- 2.10.14 The Ward Impact Summaries include a section on the impact of traffic and public transport links due to traffic management measures at a ward level. The Council question how these



impacts fit into surrounding wards and the borough more widely in terms of supporting connectivity for local residents and reducing severance. Bus routes and roads are not situated in silo but rather interlink and support residents to access local amenities and social activity opportunities. A further understanding of how closures, diversions and other traffic management measures will impact on different wards throughout the duration of the construction phase is needed, in particular how this will be monitored and what mitigation measures will be taken to reduce impacts on bus operators and passengers. HE should be indicating a greater commitment to mitigating impacts on the local bus networks and funding should be made available.

- 2.10.15 As detailed on page 9 of the Council's review of the CoCP in **Appendix C**, the strategy for, and potential effects of, accommodating and managing the construction workforce is a key issue. Further work is required to satisfy the Council of the lack of impacts of both the worker accommodation on-site and in the wider community. Also, there is still no reference to the monitoring or impact of the construction workforce on demand and access to health and other services. This was raised previously by the Council in the review of the CoCP submitted as part of DCOv1 (see SoCG Log item 'NEW-HH (67)' and this issue remains outstanding. We would expect this monitoring to encompass monitoring of the demand and access to local health and social care and other services and would ask that this is included by HE. In Thurrock there is an existing and growing demand and capacity gap for Primary Care Services. Therefore, accommodating additional demand from construction workers could exacerbate the issue reducing the access to health services of the existing resident population.
- 2.10.16 The Construction Update does not mention built cultural heritage and therefore fails to identify the loss of listed buildings which should be headline factors. It also fails to identify the loss of a nationally designated Schedule monument. Overall, there seems to be a poor understanding of cultural heritage throughout the submitted documents.
- 2.10.17 There are some very significant utilities and viaduct works proposed for which limited information is provided regarding the nature of works and the likely impacts e.g. National Grid power lines, UKPN proposals, Tilbury Viaduct, Chadwell St Mary Link, Orsett Heath Viaduct. Further details are requested by the Council (refer to **Appendix K** and Section 2.17 below).

## Monitoring

- 2.10.18 As stated in the Council's review of the Construction Update in **Appendix H** and in the Council's response to other documents, including the oTMPfc and FCTP in **Appendix A**, there is a lack of clarity from HE on the overall approach to monitoring during construction to inform a number of key controls, management and governance activities e.g., construction logistics plans, traffic management plans, workforce travel plans and environmental management.
- 2.10.19 The monitoring that is proposed is very traffic orientated. The Council would have expected to see this road network impact work form part of a much wider monitoring and evaluation plan for the scheme in order to demonstrate the scheme outcomes and impacts in a much wider sense considering a range of social, economic and environmental issues.

## The Future

### 2.11 Consideration of Future Travel Patterns and the Transport Decarbonisation Agenda

- 2.11.1 The consultation documents make no substantive reference to the implications of the LTC scheme to transport decarbonisation, how the scheme might need to be adapted to respond to this challenge or to become an enabler of transport decarbonisation and green growth in the Thames Estuary using alternative modes and travel patterns.



- 2.11.2 We acknowledge that the Council recognise in separate correspondence on this matter, the changing policy position in respect of transport requirements relating to carbon emissions of both the car and freight fleet, technological change such as the emergence of connected and autonomous vehicles, as well as growth in the Thames Estuary, including the advent of the Thames Freeport – all of which increases uncertainty for the LTC. The Council notes that HE is currently reviewing the UK Government's Transport Decarbonisation Plan and HE's Net Zero for Highways Plan to consider the implications for the LTC, and that you recognise the importance of public transport, active travel and changes in the vehicle fleet as part of the future transport mix.
- 2.11.3 Whilst the Council would wish to see a more enlightened approach from DfT to scheme identification in which schemes are developed to respond to strategic transport requirements across existing and emerging modes (rather than on a single modal basis) – this response deals with the LTC proposals as it stands. We acknowledge that Government has taken the position that much of future travel reduction is likely to be related to shorter journeys, and that the strategic road network is likely to have an important role to play longer term. Nevertheless, carbon reduction of the construction and operation of the strategic road network is a critical issue – both nationally and locally – and should it proceed, LTC should be a transformational project in this regard. As agreed in a recent meeting, *'Decarbonising Transport and Net Zero for Highways are now in the public domain and set the level of ambition for HE's road schemes. LTC has a scale, profile and location that creates great potential to lead the way.....'*
- 2.11.4 The Council considers it critical that the following key points from the recent correspondence as part of this consultation are addressed:
- i. HE suggests that LTC will provide for faster journeys by public transport. Public transport services to and from Thurrock urban areas, South Ockendon, Stanford-le-Hope, Corringham and Basildon will be important to the future growth of these areas. However, in the absence of the TLR there is no convenient or realistic access for local public transport to the tunnel. Public transport journeys between origins and destinations north and south of the river would be unviable, being too long via the currently proposed LTC. The Council has suggested the temporary use of the emergency accesses for public transport access to bridge the anticipated gap between the delivery of LTC and TLR, (which could be indefinite), but this has been rejected. Far from being a stimulus for local public transport connections, the Council believes that LTC will act as a deterrent to public transport operators and users.
  - ii. HE has referred to the importance of the strategic road network for the future of freight movement, government's ambition to achieve zero emission HGVs, and the importance of expanding the rail network and inter-modal terminals in achieving net zero. Setting aside for the time being the issue of rail (and the potential for north-south connections across the Thames and around the congested London rail network), there are important questions to consider about how the strategic road network interfaces with freight movement to transform its operation. For example, encouraging the development of a hydrogen network for freight and construction vehicles, developing locations for intermodal and last mile connections (including transfer to river transport), and delivering enabling roadside technology, (such as the development of HGV platooning technology) to support improved logistics functionality and operation, thus enabling safety and environmental gains. The HE *'Net Zero Highways – Our 2030/2040/2050 Plan'* states on page 18 that it will:  
  
*'Use our Lower Thames Crossing scheme as a key project to test low carbon innovation and approaches.'*
  - iii. HE states that the TLR is being developed by HE, and that this will provide an important connection for buses (and freight/port traffic). If this is such an important component of the overall solution, how can the delivery of this part of the scheme be secured? As it stands, it is entirely possible that LTC will be delivered without the TLR and this could be in

perpetuity. In this case, potential benefits for public transport and freight connections, and consequential impacts on local roads will persist indefinitely. The Council therefore wishes to agree a mechanism through which the TLR can be delivered prior to RIS3, in line with programme for delivery of LTC.

- iv. The Council notes HE's comment about the 6th carbon budget methodology currently suggesting that vehicle electrification and the introduction of CAV technology will result in increases in demand, on the basis of assumptions made. Are these good outcomes for carbon reduction and community cohesion? What assumptions would need to be made to secure reductions in single vehicle use, and how might these apply to the road user charging regime for LTC. How could the operational regime be used to create positive outcomes from a carbon and community perspective? The Council has seen no assessment of uncertainty as part of the development of this scheme, and no evidence of proposals that could suggest that LTC could become a transformational project.
- 2.11.5 Overall, the Council currently perceives that the approach of the project to these issues is to seek to avoid anything that complicates the proposal. HE is focussed on meeting its programme for consultation and DCOv2 submission to the expense of rational and necessary consideration of the implications for alternatives, scheme design development or mitigation requirements to accommodate the need to support public transport, active travel and future, more sustainable modes of transport on the project. The Council would welcome an opportunity to develop a plan with HE which would enable LTC to become a transformational project, capable of stimulating green growth in Thurrock, and of supporting transition to net zero both locally and more broadly across the strategic road network. Given the immense investment into this scheme, and the impact it could have on the Thames Estuary and the transformation of the wider strategic road network, the lack of commitment to these issues is a major concern.
- 2.11.6 The Council believes that HE should be making commitments in the DCO about transport decarbonisation and its implications locally. HE has stated that the DCO commitments on carbon will be stronger and more comprehensive than previously seen but has expressed concern about committing to delivering outcomes that are inherently uncertain. However, the Council believe that it is possible and desirable to set broad objectives and a committed framework for future action, secured through the DCOv2. It is not necessary to have all the answers, but it is important to set the framework for future action. At present, there is nothing which acts as an incentive on HE to make a concerted effort to be progressive on this agenda, and the Council believes that this needs to be grasped.

## 2.12 Inadequate Proposals for PRow and Cycling

### Current Proposals

- 2.12.1 The current consultation sets out the provisions for WCH's in several key documents:
- i. Ward Summaries – these set out for each Ward, the impacts of the project on footpaths, bridleways and cycle routes during construction, including the likely length of closures. Reference was made to work to identify suitable temporary diversions, but no detail was provided. It also includes information about new and upgraded routes once the new road is operational, with broad maps.
  - ii. Construction Update – this review is contained in **Appendix H** below, but it does not contain any specific references to the effect of construction works on WCHs and this is considered a serious omission. This is discussed further below.
  - iii. Operations Update – this review is contained in **Appendix H** below, however, it does state that there are 46kms of new or upgraded routes for WCHs, including reinstating routes severed in the past. It refers to information shared at the entirely virtual Design

Refinements Consultation, although apart from setting out a number of design changes to WCH routes, it is not clear what it is referred to regarding the WCH Strategy.

- iv. Design Principles – this ‘control’ document review is contained in **Appendix E** below, however, it confirms that *‘Where the Project affects existing Public Rights of Way, these would be reinstated with provision of under- or overbridges, or a suitable alternative provision would be made. The Project proposes a number of new, diverted, upgraded and reinstated routes for walkers, cyclists and horse riders.’* This document also sets out several WCH principles to be followed (Section 3.2, PEO 01 – 11) and there are further specific WCH principles in the section specific areas (Areas S7- S12), both of which only apply to permanent work or the operational stage of the LTC scheme. At a detailed level the Council wants a much clearer understanding of the likely surfacing materials for the upgraded routes, as it will take on their ongoing maintenance once they are operational.

## LTC/HE Evidence Base Studies

- 2.12.2 The HE ‘Designated Funding Sub-Regional Walking, Cycling and Horse-Riding (WCR) Strategy’ was issued for comments to the Council in May 2020 and was responded to in detail in late September 2020. HE responded to these comments in March 2021, however, it is understood not to have formed part of the DCOv1 documentation, as it covered opportunities outside the scope of the LTC scheme. The study identified a range of potential projects, however, no funding has been made available to implement these routes.
- 2.12.3 In addition, a Walking, Cycling and Horse-Riding Assessment Report (WCHAR) and its subsequent ‘Assessment and Review’ report was undertaken in January 2019 and July 2020 respectively to consider opportunities that could be considered as part of the LTC scheme. This document was undertaken in accordance with the DMRB HD 42/17 guidance note but was not included as part of the DCOv1 documentation either and does not form part of the current consultation. It was only shared with the Council in March 2021. When the Council requested to understand why it was not part of the DCOv1 documentation (and hence DCOv2) HE stated that *‘.....a piece of assessment work to inform the development of our proposals for LTC. They reflect a point in time in the design development of the project, and while they have informed our progress to our final proposition, they represent work in progress and consider a wider scope than our finalised project proposals. By their nature, they consider a wide frame of opportunities, only some of which will be progressed by Highways England, and some of which could be developed through mechanisms unrelated to the DCO, such as Designated Funds. The documents themselves are not incorporated in the application, as the matters pertinent to the final proposals are clearly set out with the finalised DCO application documentation.’* The DCOv1 set out the PRoW proposals on the Rights of Way and Access Plans, within the Project Design Report (PDR) and undertook an assessment of impacts in the Environmental Statement (ES).
- 2.12.4 This WCHAR Report in January 2019 and July 2020 set out a long list of 19 strategic opportunities, actions and outcomes in the Tilbury (5), Chadwell St. Mary (5), A13 (6) and Ockenden (3) areas. Notwithstanding this, it concluded that there would be only 5 key routes/corridors included in the LTC scheme in the Thurrock area. The summary methodology/reasoning for this selection of 5 projects from 19 is set out in the WCHAR Report in January 2019 in Sections 3.3 – 3.4. In summary, it excluded those routes that did not intersect with or were not close to LTC; it undertook a post code assessment to determine benefit and those benefitting the most were taken forward; then a walkover survey for feasibility was undertaken; costs were established and an internal HE workshop held; and the result were the 5 schemes chosen. The Council has built on this methodology and selection to contribute to its emerging policy and to add further schemes for HE to include in the LTC scheme prior to DCOv2 submission, as set out below in paragraphs 2.12.5 – 2.12.9 below.

## Future Provision and Policy

- 2.12.5 The Council is promoting its 'Active Travel Strategy' (April 2020 and as part of its Active Places Strategy, August 2020) with LTC and through its emerging Local Plan. The Council is looking for HE's meaningful support in developing this strategy, not based on current measured use, but taking into account the vision for a future comprehensive active travel network and using of the Government's '*Propensity to Cycle*' tool to provide a consistent evidence base to inform WCH improvements.
- 2.12.6 The Council has set out its proposals in early September 2021 for additional WCH links and routes to add to the current LTC proposals, following a thorough review of strategic routes in the borough for walking and cycling (as the Council develops its Local Cycling and Walking Infrastructure Plans (LCWIP)) and accounting for the Active Travel Strategy referred to above. These additional proposals will include additional routes/links for inclusion in the LTC scheme and further routes that can be explored with HE as potential legacy projects. Then discussions can continue with HE for their inclusion within DCOv2.
- 2.12.7 Recent discussions with HE has revealed that there are very limited mitigation proposals for WCH routes affected by construction, even if closures or diversions are proposed for several years. These construction impacts relate to the following routes: BR 219, FP136, FP200, FP146, FP187, FP51, Bridleway 58, FP97, FP207, BR205, FP79, BR58, FP61 and FP60. For most of these affected routes HE were not proposing to provide diversions and routes could be closed for months or several years. This is considered unacceptable, and the Council have insisted that alternative, safe routes are always provided for temporary diversions and closures in mitigation of the severance and other community effects. The inadequate proposals for mitigating construction effects on WCR routes is not properly covered within the consultation materials, even broad references to disruption and minimising diversions/closures within the overall Ward Summaries and the specific Ward chapters (Sections 12.5, 15.5, 16.5, 17.5, 18.5 and 20.5 and the associated maps). The Council have consistently raised concerns relating to how users will be encouraged to use WCH routes during construction and following completion of the LTC scheme. Existing and future users may be discouraged from using WCH routes while LTC is constructed and there does not seem to be an LTC/HE strategy to encourage use on the WCH network, which is at direct opposition to the Council/DfT vision to increase and enable Active Travel options for all users of the network.
- 2.12.8 Finally, there are some 13 WCH crossings of the LTC via bridges and underpasses in Thurrock and the Council note that these are of a specified width, which may or may not be adequate, and the DCOv1 set these out within the Book of Plans (Structures Plans, Sheets 31-36, 46, 50, 52, 55, 57, 59 and 66). Subsequently, we have been discussing the appropriate standards to follow in allocating the widths for WCH on these crossings, which is confirmed by DfT as '*Cycle Infrastructure Design*' LTN 1/20, July 2020. This is considered particularly important to provide segregated, not shared, cycle routes for these crossings. This is because it is the Council's ambition through its '*Active Travel Strategy*' to significantly increase cycling across the Borough, as mentioned above. The emerging Thurrock Transport Strategy (TTS) and Vision also highlight the importance of a sustainable and well-connected transport system that supports a wide range of travel needs, reducing car dependency in favour of walking, cycling, and using public transport. This is built around the concept of modal shift and multi-modal roads, where walking and riding a bicycle is always safe and convenient for everyone. The TTS and Vision sets out the importance of accessibility for all, enhancing green/blue grid connections and reducing severance now and as the WCH network evolves through the Local Plan period to support existing and new communities. It is important to ensure that the LTC plays its part in fixing missing links, providing more and better walking and cycling facilities and helping the Council to promote and deliver viable WCH options. Therefore, in conclusion, the Council is not able to confirm that HE have demonstrated that these appropriate standards have been followed, which may require amendments to the usage allocation on the above-mentioned bridge sections. Further discussions are continuing.

2.12.9 It is therefore essential to ensure that LTC does not become a barrier to future increased cycle use across the Borough. These discussions are ongoing, but it is notable that there is no detail of these proposals or discussions within this consultation, which is considered an omission. The Council requires HE to demonstrate that these appropriate standards can be met and are then consequentially shown on revisions to the above mentions Structures Plans within the Book of Plans, which are secured within DCOv2 as plans for approval. It should be noted that the Council is expected to deliver WCH/Active Travel enhancements which meet the LTN 1/20 standard. If they do not then severe financial penalties will be applied by DfT, resulting in loss of capital and maintenance funding allocations. The Council cannot be exposed to any level of risk relating to LTN 1/20 standards as a result of the WCH measures that are implemented through LTC. Therefore, it is imperative that WCH measures are designed and constructed to the required DfT standard.

## 2.13 Skills and Employment

- 2.13.1 The draft '*Skills, Education and Employment Strategy*' (SEE Strategy) was originally shared with the Council in late-June 2020 and the Council provided detailed comments in early July 2020. HE responded to these comments in February 2021. Current progress on this topic rests with the Skills and Employment Working Group of the Benefits Steering Group, although its last meeting was in May 2021 with a future planned date for the next meeting in September.
- 2.13.2 We note that it is not part of this current consultation, although the CoCP is a key document (see below) and is broadly considered an unfortunate omission on a matter so vital to Thurrock. Key comments on this SEE Strategy in 2020 can be summarised, as follows:
- i. The need for local labour targets and clearer commitments, especially producing local benchmarking.
  - ii. Delivery support is required from HE to the Council, especially for job vacancies and to support the business community.
  - iii. Active support for future careers fairs.
  - iv. Support in advertising all local vacancies and discussions with the Council in advance.
- 2.13.3 Clearly, there is a once in a generation opportunity to support the local community to develop skills and employment opportunities. This cannot be seen as an add on or burdensome requirement, but should be central to the LTC scheme, but its progress is currently unknown, and it is not referred to within the Community Impacts Consultation.
- 2.13.4 Section 2.5 of the draft CoCP within this consultation, refers to targets being set by HE for apprentices, workless job starts, graduates and traineeships, work placements and training for local residents, which is welcomed, although there has been no discussion of the nature/quantum such targets. Furthermore, there is no mention of the SEE Strategy, which we assume should sit above and govern the Employment and Skills Plans to be prepared by contractors in advance of works commencing. It is noted that there are no REAC measures relating to skills and employment.
- 2.13.5 It is noted that the revised SEE Strategy was only just circulated in mid-August 2021 to stakeholders, and it is intended that it will be launched publicly in October 2021. It has not yet been reviewed by the Council.
- 2.13.6 Notwithstanding this, it is paramount that HE includes the final SEE Strategy (following stakeholders' comments) within the DCOv2 documentation as a 'control' document, which should be legally secured through amendments to the CoCP. However, in May 2021 HE informed the Council that *'there are no plans to include the SEE strategy in its current format*



*into the DCO application, however, LTC are currently discussing internally the most suitable way to incorporate relevant parts of the document into our DCO application.'*

- 2.13.7 Nevertheless, we continue to request that is included and becomes a 'control' document within DCOv2 and that HE sets out its reasons for this above 2.13 of the Summary Review Report. Furthermore, it is vital that an appropriate new Requirement is added to secure the SEE Strategy and that further revisions are made to the CoCP/REAC to ensure matters of detailed commitment are included.
- 2.13.8 Alternatively, the SEE Strategy could be secured by way of as section 106 agreement, as has been done in connection with the West Midlands Rail Freight Interchange Order 2020. In any event it is imperative that the SEE strategy is secured.
- 2.13.9 In addition, there is no commitment for the LTC project to adopt the social value procurement requirements set out in both the Social Value Act, 2012 and the Council's Social Value Framework, adopted in November 2014 in procuring its goods, materials and services.

## 2.14 Climate Change and Decarbonisation

- 2.14.1 Within the Consultation materials there is relatively limited information and detail on climate change measures, decarbonisation or net zero measures, especially in light on needing to meet and deliver the net zero transition over the next decade. The following documents have been reviewed and it is notable that such references are limited:
- i. Ward Summaries – this review is contained in **Appendix G** below, no mention of these above-mentioned matters.
  - ii. You Said We Did (YSWD) – this review is contained in **Appendix I** below, however, very little is covered on this topic.
  - iii. Construction Update – this review is contained in **Appendix H** below. Whilst the document does offer 3 pages on 'sustainable construction', it does not appear to offer any clear targets and commitments.
  - iv. Operations Update – this review is contained in **Appendix H** below. Whilst the document does offer 2 pages on 'climate and carbon' and references the Government's 'Decarbonising Transport', it does not appear to offer any clear targets and commitments.
  - v. CoCP and REAC – this review is contained in **Appendix C** below, and does offer some commitments on these matters, although noting that commitments lack ambition in relation to the scale of the challenge and opportunity which the Scheme faces.
- 2.14.2 The Government's 'Decarbonising Transport – A Better, Greener Britain' was published on 14 July, also the start of the LTC Community Impacts Consultation. This was followed on 19 July by HE publishing their 'Net Zero Highways – Our 2030/2040/2050 Plan'. It is understood that accounting for these two policy documents within the consultation materials was therefore not possible. However, it is expected that HE do provide clear commitments to decarbonising the LTC scheme throughout its lifecycle prior to DCO re-submission and explaining how these two critical policy documents will be addressed through the DCOv2.
- 2.14.3 'Decarbonising Transport' sets out on page 158 a clear change in strategy for the future:
- 'We need to move away from transport planning based on predicting future demand to provide capacity ('predict and provide') to planning that sets an outcome communities want to achieve and provides the transport solutions to deliver those outcomes (sometimes referred to as 'vision and validate'). We will continue to work with MHCLG to identify how we can best support local authorities to develop innovative sustainable transport policies as part of the*



*planning process, how this can be used to better assess planning applications, and better monitor local transport outcomes to deliver on our ambitions for sustainable transport use’.*

- 2.14.4 Clearly, this commitment from Government now needs to translate into secured commitments within the DCOv2 and HE should explain how this will be achieved prior to re-submission. Measures expected and referred to in the Plan should include both project specific interventions, such as zero carbon energy provision for operation, landscaping, low embodied carbon material use and regional interventions, such as supporting strong modal shift to sustainable transport modes (greater promotion of active travel in its mitigation and provision for enhanced public transport use), new low carbon infrastructure (such as facilitating the use of EV/Hydrogen vehicles) and legacy skills. This should be demonstrated rather than just providing a road for cars and HGVs based on predictions of future demand to provide additional capacity. This is critical to the entire transport sector’s transition to net zero.
- 2.14.5 There must be a concerted effort for the LTC Scheme to drive down the embodied carbon associated with the materials used. An example of this is the use of warm asphalt replacing the traditional asphalt materials, which it is understood HE is now seeking across their schemes as standard as part of a carbon efficiency project. This can result in carbon savings of around 15% compared with traditional hot rolled asphalt. Warm asphalt is produced at approximately 40 degrees lower than its hot equivalent and provides additional benefits of fewer fumes for construction workers and quicker opening times for the road. It is expected that clear commitments and measures, above standard practice, relating to the decarbonisation of asphalt, cement and steel are included in DCOv2.
- 2.14.6 HE must explain how consideration has been given to future needs within the LTC scheme to enable and encourage whole transport system transformation and adaptation, and LTC role in making that happen. The proposals should clearly address how the scheme will support the 6 strategic priorities set out in the Transport Decarbonisation Plan (Pages 36-37), and in particular, how the scheme will support and contribute to: 1. accelerating modal shift to shift to public and active transport; 2. decarbonise road transport, and 3. decarbonise how we get our goods. This needs to be supported by ambitious and innovative commitments associated with the design, construction and delivery of the scheme.
- 2.14.7 The current LTC scheme and the associated climate change impacts appear to be inconsistent with the 78% Carbon Reduction by 2035, which is now enshrined in UK law via the Climate Change Act 2008 (and its 2019 Amendment Order) and its subsequent Carbon Budget Orders of 2021. HE must demonstrate how it will contribute to this target and how this will be reflected in the DCOv2 by additional carbon reductions, especially through the Carbon and Energy Plan and Sustainability Statement and how such measures will be secured within the DCOv2. Again, this needs to be set in the context of *‘Whole Transport System Thinking’* to Net Zero with LTC being a catalyst for the transport sector’s net zero carbon transition.
- 2.14.8 The HE *‘Net Zero Highways – Our 2030/2040/2050 Plan’* states in page 18 regarding delivering near zero/net zero construction for asphalt, cement and steel by 2040 that HE wants to lead the industry on this agenda and to do this they will:
- ‘Use our Lower Thames Crossing scheme as a key project to test low carbon innovation and approaches.’*
- 2.14.9 Clearly, this commitment now needs to translate into secured commitments within the DCOv2 and HE should explain how this will be achieved prior to re-submission. Measures expected and referred to in the Plan should include both project specific interventions such as zero carbon energy provision for operation, landscaping, and low embodied carbon material use: and regional interventions such as supporting strong modal shift to sustainable transport modes, new low carbon infrastructure, and legacy skills.
- 2.14.10 HE have recently begun discussions about wider ambitions and innovation measures to address climate change and decarbonisation. These discussions are welcomed and are

currently in the early stages. A number of key points have been raised for further development. It is crucial that HE develop and incorporate these within the DCOv2 application to mitigate the impacts of the Scheme and to realise and deliver value-for-money and positive outcomes for local communities and the environment:

- i. The LTC scheme has a scale, profile and location that create both, great responsibility, and great potential, to lead the way on decarbonising construction. In particular, this could be part of building regional capability in low to zero carbon technologies and skills. Hydrogen conversion of plant and equipment, building on current TEGB work could be one such example. Another example would be developing strategies and commitments to decarbonise high-emitting steel and cement-based products.
- ii. DCOv2 commitments on carbon need to be stronger and more comprehensive than previously seen, but HE states that it cannot commit to delivering specific target outcomes that are inherently uncertain. However, the Council believes that it is possible and desirable to set broad objectives and a committed framework for future action, secured through the DCOv2. It is not necessary to have all the answers, but it is important to set the framework for future action. At present, there is nothing which acts as an incentive on HE to make a concerted effort to be progressive on this agenda and the Council believes that this needs to be grasped. HE should therefore commit to establishing new processes for developing action on GHG emissions, such as comprehensive carbon management strategy, emission budget reviews, green collar job creating and investment into innovation in addition to the carbon accounting methods set in PAS 2080 and a governance process that supports delivery against agreed targets.
- iii. The offsetting potential of afforestation, wetlands and similar approaches are limited in the region. HE sees the opportunity being in the alignment of the biodiversity and carbon agendas, building on existing biodiversity/environmental work. The Council believe a comprehensive plan is necessary to meet the project biodiversity net gain requirements and more broadly to mitigate the impact of the scheme on the natural environment, recognising the importance of this issue as set out in the Dasgupta Review for meeting the climate challenge and addressing health and wellbeing impacts. Legacy benefit to the region of, for example, the establishment of a hydrogen supply chain, may also provide a quantifiable offset (regional 'insetting'). The scope for maximising the benefits of the scheme's investments beyond the project should be included as part of the carbon budgets.
- iv. Sustainable local transport remains an issue for Thurrock and more consideration and support is sought from LTC/HE. This is a priority for Thurrock in promoting active travel and we expect further contributions to this from the LTC scheme.

2.14.11 As set out above, a range of national climate change related legislative and policy changes have been made during 2021, including adopting the 6<sup>th</sup> carbon budget and the publication of the Department for Transport's '*Decarbonising Transport – A Better, Greener Britain Plan*'. Within DCOv2, LTC will need to demonstrate how they are contributing to the delivery of policy objectives to decarbonise the transport system and aligning with national targets to deliver 78% carbon reductions by 2035. DCOv2 should define an environmental management system that will ensure legal compliance and performance against targets. Clear commitments and mitigation measures should be set out in DCVOv2 to demonstrate how the scheme will lead the way on decarbonisation throughout its lifecycle.

## The Legacy

### 2.15 Lack of legacy – summary and progress of Hatch process

2.15.1 It should be noted that although matters of legacy and some elements of mitigation are not included within the current consultation, all the matters set out below are critical to the Council

and inextricably linked to the consultation materials, as the current in-scope mitigation and legacy provision is considered inadequate.

- 2.15.2 The Council issued the full Hatch Report '*LTC Mitigation Benefits*' to HE in mid-November 2020 informally. The Council then formally published the Hatch report on its website on 24 February 2021. HE's initial response was that the report was useful and helpful. The report contained 57 measures that the Council wants to see HE action, which are split, as follows:
- i. Direct Mitigation: 23 measures that address the direct impact of the construction phase, as well as design of the LTC scheme and the resulting traffic and transport implications.
  - ii. Council-Led Support: 12 measures that ensure sufficient local resource is available to support local businesses and communities throughout the construction phase and into the transition of the operational scheme.
  - iii. Legacy: now 23 measures that will ensure the LTC scheme delivers a lasting legacy across Thurrock and ensure positive local outcomes, and which could largely be included within the LTC scope.
- 2.15.3 One further measure was added in subsequent dialogue with HE, making 58 measures in total.
- 2.15.4 Technical meetings between HE and Council officers/consultants began in December 2020 and continue to be held. These meetings have been helpful in explaining to HE the detailed thinking behind each measure, determine if further information was required from the Council and to discuss how best for, HE to satisfy each measure. Since December 2020 there have now been 14 lengthy meetings.
- 2.15.5 Unfortunately, at the time of writing, very few of the 58 measures have been agreed. The number of technically agreed measures is less than 5. The reason for this long delay, in the Council's view, is the need to continually and repeatedly explain each measure in increasing detail, answer seemingly never-ending follow-up questions and a resistance from HE to resolve the Council's requests, despite the regular tracking of each measure and the agreed consequent actions.
- 2.15.6 The vast majority are still in discussion, but on many the clear indication from HE is that they will be able to offer a response that matches or at least is close to the Council's request. The Council officers/specialists have been frustrated that technical agreement has not been reached on more measures. Some of the measures where agreement should have been reached by now are:
- i. As noted in previous sections, LTC is a significant opportunity to provide jobs and skills. We are yet to see any detail on our request for a target on use of local labour, apprenticeships, etc., (as specified in CLS3). Also, the Council have not seen a full and formal draft of the Skills and Employment Strategy (which impacts our request on CLS1) until very recently.
  - ii. LTC is in the process of establishing a community grant scheme (our CLS11 and CLS4 requests), but the Council are yet to see how much will be ring-fenced for Thurrock and whether it is commensurate with Thurrock's needs.
  - iii. LTC is also an opportunity to deliver extensive social value to local communities through contract procurement. The Council have made requests on this topic (CLS5) but have yet to see any locally specific proposals.
  - vi. The provision of sustainable public transport provision to constructions sites (our M7 and M8 measures). The Council have yet to see a positive response on this, despite the Technical Note making a reasoned case for this inclusion.

- vii. Ensuring that the proposed re-provision of bridges across the LTC, along existing corridors, deliver sufficient legacy provision to encourage active sustainable travel/support future growth (L12). This has been in technical discussions for several months and has not yet been resolved.

2.15.7 On some of the 58 measures HE has indicated they are unlikely to agree to the Council's request, or are unable to agree to the following measures:

- i. Grant funding to improve business environments and tackle perceptions of the local area (CLS6) and provision of Green business support (CLS7). The Council believe there is very little compensation on offer to local small businesses for the disbenefits the Council will face and will continue to make this point.
- ii. Safeguarding of the future provision of junctions onto the LTC at South Ockendon (L1). The Council has provided a suitable 'passive provision' definition and plans of the two areas at Tilbury and South Ockendon over which it would apply and still awaits a satisfactory and considered response.
- iii. Deliver the proposed construction haul road along Medebridge Road alignment from the A13 to Grangewater to a sufficient width and standard to enable it to be adopted by the Council (L8). The Council have requested improvements to this road, but HE consider it adequate for their construction needs, with the addition of passing places.
- iv. Use of marine transport for the movement of materials (M10). HE has produced its outline Materials Handling Plan (MHP) and it is part of the consultation materials. The Council have reviewed it within **Appendix B (2)** below, but it is not adequate in its present form.
- v. Ensure that electric and/or low-emission vehicles are incentivised to use the LTC with discounted or free use (L19). The Council's understanding is that LTC does not have sufficient mandate to agree to this measure.

2.15.8 The Council will continue to make a robust case on the necessity of these measures.

## **Technical & Process Matters**

### **2.16 DCO Requirements**

- 2.16.1 Local authorities need to have a leading role in the discharge of requirements, as they do in most DCO applications excepting those currently by HE. The majority of LTC is within Thurrock. The Council is the interface between the development for the majority of the strategic road network and creating benefit for the future of local residents/ stakeholders. Leaving the discharge of requirements to the Secretary of State risks the strategic case dominating future plans and the local case for local residents/stakeholders being overlooked.
- 2.16.2 The Council has raised concerns with HE previously, including in the Council's response to the LTC Supplementary Consultation (29 January – 9 April 2020) and LTC Design Refinements Consultation (14 July – 12 August 2020), and the Planning Inspectorate in the past, and is now raising this point again. This remains a considerable concern to the Council.

### **2.17 Inadequate, missing and late critical data**

- 2.17.1 The Council has been actively engaging with HE, however, as stated in all three previous consultation responses from the Council, there has been inadequate, missing or late data from HE for LTC. At this stage, there are still significant information gaps and the potential for under reporting potential impacts. This information is critical for the Council to provide a fully informed response.

- 2.17.2 A joint letter from Thurrock Council, Gravesham Borough Council, London Borough of Havering and Kent County Council was sent to HE on 4 August 2021, formally requesting an extension of time on the current Community Impacts Consultation until the 6 October 2021, to provide time to consider further information. The letter set out the key missing data, as set out below:
- i. Thurrock Council has only just received the **updated operational traffic modelling data** for the years 2029, 2036, 2044 and 2051, including the significant additional lane on the LTC to A13 slip road. The Council have downloaded the data, but some LAs have had difficulties, thereby adding to the time. It will take some 3-4 weeks to analyse the data, which would then go beyond the current end of consultation and as this analysis is so critical to many aspects of the consultation, any responses would be lacking this critical issue.
  - ii. Thurrock Council has not received the **updated construction modelling data** which is understood to support the documentation within this consultation.
  - iii. Due to the late receipt of the traffic modelling data, we understand that we will not be receiving the **air quality and noise updated assessments** until well into September, again after the current consultation is due to close, which will require several weeks to properly analyse and review.
  - iv. Finally, and also due to the delay and effects of matters above, we will not be discussing the **updated health impacts or any attendant mitigation** until later in September at the CIPHAG meetings, again after consultation has ended.
- 2.17.3 The Council is concerned about the lack of adequate provision for emergency services within the LTC scheme or any securing mechanism for its provision, especially relating to the lack of detail and absence of measures to support the emergency services and safety partners. The Council's concerns relate to the following matters:
- i. Lack of designated protest areas or Protest Plan.
  - ii. Absence of detail on Plans for Approval relating to CCTV, ANPR, fire suppression, cross passages and distances and lighting.
  - iii. Adequacy of emergency access proposals or any Emergency Hub.
  - iv. Lack of provision for Rendezvous Points (RVPs).
  - v. Lack of a Muster/Congregation Area during an incident/emergency.
  - vi. Lack of a dedicated 'Control' document relating to emergency services provision.
- 2.17.4 It is, however, recognised that the Emergency Services and Safety Partners Steering Group (ESSPSG) have provided their initial response to HE in August 2021 and they will be providing a separate and more detailed response to the HE Consultation, which will set out their concerns in detail.
- 2.17.5 The above issues remain a considerable concern to the Council. Based upon the lack of background information and consultation material available, the information presented by HE is deficient in the detail required for stakeholders to provide an informed response.

## 2.18 Lack of adequate local involvement via control documents

- 2.18.1 There is a lack of adequate local involvement, via the control documents and ensuring key plans within the Book of Plans are for approval and not information. In particular, this largely

relates to not accounting for valid comments on earlier/current versions of the control documents and in not providing for local authority approvals through the DCO Requirements. Also, at present multiple forums and groups are proposed throughout the Construction Update – Joint Operations Forum (JOF), Traffic Management Forum, Travel Plan Liaison Group, Community Liaison Forums, etc., but this currently appears disjointed and uncoordinated. The Council would expect (as with other major transport schemes, such as Silvertown Tunnel) that HE establishes an overarching Implementation/Delivery Group made up of representatives (at a senior executive level) of all the impacted local planning and highway authorities and the Department for Transport. HE should be required to consult with this Implementation/Delivery Group on strategic and critical matters related to planning and design, enforcement/exceedances and constructing and operating the LTC scheme. Further clarity from HE is required on proposed governance arrangements.

- 2.18.2 As detailed in the Council's review of the oTMPfc in **Appendix A**, it is the Council's opinion that it should be the approving body for construction management plans, including the contractor's TMPs, Construction Travel Plans and other relevant management plans secured through the DCOv2. The governance of the management plan, and the process for agreeing them needs to be set out in the relevant plan. This would give direction and clarity to the appointed contractors and the Council. Clearly, leaving the discharge of requirements to the Secretary of State risks the strategic case dominating future plans and the local case for local residents/stakeholders being overlooked.
- 2.18.3 However, if this is not accepted, then the governance of those TMPs and the process for agreeing them, prior to approval by the SoS, needs to be set out in the oTMPfc. This would give direction and clarity to the appointed contractors and the Council. HE refers to reporting to the SoS that consultation with local authorities has been undertaken, however, the evidence to the SoS must include a report as to what feedback was received and how it has been addressed. This is not without precedent, see for example the A30 Chiverton to Carland Cross DCO 2020, the A14 Cambridge to Huntington Improvement Scheme DCO 2020 and the A585 Windy Harbour to Skippool Highway DCO. The local authority must have the right to respond to the report and a system of conflict resolution identified, with Dispute resolution should be the jurisdiction of the Secretary of State as a last resort.
- 2.18.4 The draft outline Materials Handling Plan has only recently been issued to the Council and the Council has not had any involvement in its preparation. As currently draft, the Council has many concerns with the oMHP, as set out in **Appendix B (2)**. The day-to-day governance process must be a system operated by the HE and the affected Local Authorities in collaboration with the Contractor, with only unresolved disputes referred to the SoS. The draft oMHP does not include such governance and management mechanisms.
- 2.18.5 It is essential that the Council pursues an acceptable outcome for the oMHP prior to submission of the DCOv2 to protect its interests with regards to the movement and handling of material, plant and equipment within and through the Borough. Once consent for the project is granted, the Council will have very limited opportunity to influence the detailed strategies, which will have a significant impact on the Borough for the 6-8 years of construction. The Council's full review of the draft oMHP is in **Appendix B (2)**.
- 2.18.6 Some of the control documents are currently missing and the Council is therefore unable to comment on the adequacy of these documents. The Environmental Masterplan and the Draft Archaeological Mitigation Strategy – Outline Written Scheme of Investigation are control documents, but have not been provided as part of the consultation as they are currently being updated by HE.



## 2.19 Utilities - Summary and Recommendations

### Summary

- 2.19.1 This summary reports the findings of a review undertaken of the previously submitted (now withdrawn) LTC DCO (DCOV1) (October 2020) and of LTC Non-Statutory Consultation Documents (July 2021) in relation to the consideration of proposed utilities diversions which themselves constitute Nationally Significant Infrastructure Projects (NSIPs). The review contributes to the wider scrutiny by the Council of the LTC DCOV1 (October 2020) and emerging proposals for a future revised LTC DCO application.
- 2.19.2 The Council has consistently opposed the Project due to the negative economic, social, engineering and environmental impacts that it will have upon the borough, as well as the constraints it will place upon future growth. This includes construction and operational phase impacts from proposed utilities diversions, which the Council specifically raised concerns about in responses to HE's consultations prior to submission of the DCOV1 application. The Council's main substantive concerns regarding proposed utilities diversions relate to the extent of land-take required and likely impacts on communities and existing infrastructure, including in terms of disruption and safety. The Council together with other affected local authorities and consultees also previously raised wider concerns regarding environmental and planning impacts from proposed utilities diversions. We acknowledge that some improvements have been made over the past year, but still seek further improvements/mitigations.
- 2.19.3 To inform the Council's engagement with HE and position in respect of a revised LTC DCO application, a high-level review of HE's assessment of proposed utilities diversions (including design, environmental impacts and mitigation) has been undertaken. This review has considered both the LTC DCOV1 (October 2020) and emerging proposals (July 2021) for a future revised DCO application. Key findings from this review are:
- i. Inadequate reporting in respect of individual utilities diversions, especially within technical assessment chapters of the ES. Both LTC DCOV1 and the non-statutory consultation documentation (July 2021) to inform a future LTC DCOV2 discuss utilities diversions in general terms and suffer from a lack of specificity;
  - ii. Absence of consistent referencing and diversion descriptions even where individual diversions are discussed;
  - iii. By virtue of the above two deficiencies, inability to validate the NSIP screening conclusions reached within Appendix 3.1 Table 1.1 regarding the absence of likely significant effects from gas pipeline diversions (i.e. that proposed diversions are therefore not NSIPs);
  - iv. Lack of clear identification and screening of proposed OHL works to confirm whether each qualifies as a NSIP in its own right or requires to be treated as an Associated Development;
  - v. Absence of any justification to support the assumed Associated Development status of all proposed non-NSIP utilities diversions is not helpful and raises concerns regarding the adequacy of App 3.3 – Consents and Agreements Position Statement;
  - vi. The need for and design of individual utilities diversions has evidently been considered as a necessary consequence of the preferred route rather than a major design consideration at the outset. This is unfortunate given the scale of the proposed utilities NSIP diversions (and other diversions) and associated land-take now required to facilitate the project;
  - vii. Weak and inconsistent application of the undergrounding test set out at paragraph 2.8.9 of NPS EN-5; and

- viii. Weak approach to EIA mitigation being secured through an EMP2 which merely 'reflects' the REAC is of potential concern as HE will have less control over the implementation of 'Non-Contestable' works by utilities statutory undertakers.

2.19.4 The above deficiencies significantly hinder the ability to clearly understand the types and levels of environmental impacts and mitigation requirements associated with each proposed utilities diversion. In consequence, the LTC DCO does not clearly establish the environmental acceptability of all proposed diversions including the proposed utilities NSIP diversions in accordance with relevant requirements set out within EN-1, EN-4 and EN-5.

## **Recommendations to inform LTC DCO Rev 2**

- 2.19.5 The review reported in this technical note focused on assessing compliance with relevant Energy NPS, specifically EN-1, EN-4 and EN-5, in respect of proposed utility diversions which themselves constitute NSIPs. However, in doing so the review also identified weaknesses within the approach adopted by HE in their assessment of proposed utilities diversions more generally.
- 2.19.6 Review findings have informed the development of the following recommendations to improve how utilities diversions and associated impacts are addressed in any future revised LTC DCO application. HE is respectfully requested to carefully consider and implement these recommendations in the preparation of the LTC DCOv2 (all references below to specific DCO application documents refer to LTC DCOv1 which it is assumed will be revised or replaced as appropriate).

## **Identification of Proposed Utilities Diversions within LTC DCO Application**

- i. The root cause of many identified weaknesses is a lack of clear and consistent referencing of individual utilities diversions. To address this, consistent referencing of individual diversions should be inserted throughout all DCO application documents based on the numbered works listed within Schedule 1 of any future draft DCO. Full consistency in relation to both referencing and descriptions of proposed works is required between the draft DCO, ES Appendix 1.3, ES Chapter 2 – Project Description and ES Chapter 3 – Assessment of Reasonable Alternatives.
- ii. To enhance consistency and enable a full understanding of proposed gas pipeline diversions, ES Appendix 1.3 Table 1.1 (NSIPs screening table) should include an additional column providing a brief description of the locational/route characteristics of each affected pipeline and a cross-reference to the relevant Works Plan(s) showing the proposed diversion.

## **Classification of NSIPs and Associated Development**

- i. To enable the conclusions of ES Appendix 1.3 Table 1.1 to be validated, the reporting of likely effects associated with individual utilities diversions needs to be strengthened. All technical assessment chapters of the ES should confirm whether individual (or multiple) utilities diversions contribute to specific likely environmental effects (significant or not significant) and clearly state which individual diversion(s) is responsible, including by reference to the relevant Works Plan.
- ii. Where effects are contributed to or generated by proposed utilities NSIPs (as opposed to by Associated Developments), this should be confirmed within the relevant ES technical assessment chapter.
- iii. A screening assessment supported by evidence should be provided (as an ES Appendix) to explain in full why only one proposed electrical transmission diversion constitutes a

NSIP and why each of the other proposed electrical transmission diversions do not. This screening assessment should cross-reference the numbered OH works listed within schedule 1 of any future draft DCO.

- iv. Works Plans and Engineering Section Drawings should be amended to clearly distinguish between utilities diversions which constitute proposed utilities NSIP diversions or Associated Development.
- v. In accordance with PINS Guidance (2013), a relevant DCO application document (e.g. Planning Statement) should provide a clear justification for why those proposed utilities diversions not qualifying as NSIPs in their own right can properly be authorised within the DCO as Associated Development.
- vi. Amend App 3.3 – Consents and Agreements Position Statement to reference the potential need to seek alternative authorisation under Section 37 of the Electricity Act 1989 in the event of any proposed electrical transmission diversion not constituting a NSIP or being accepted as Associated Development.

### **Consideration of Alternatives**

- i. Amend ES Table 3.5 – Other Design Changes in respect of proposed utilities routing at Ockendon Landfill Site to:
  - a. Provide details of the affected pipeline and mitigation solution, including whether the proposed utilities routing would generate environmental impacts; and
  - b. Confirm whether any alternative diversion routes to avoid Ockendon Landfill Site without crossing the unnamed gas pipeline are feasible and have been considered by HE.
- ii. Amend ES Chapter 3 to explain why alterations (2020) to the M25 Junction 29 layout to reduce the extent of required OHL diversion, resulting in major negative visual changes, are considered to be appropriate and acceptable.
- iii. Amend ES Chapter 3 to confirm the specific OHL at Chadwell Link which triggered a route realignment (2020) to avoid a utilities diversion.

### **Assessment of Effects**

- i. The above recommendations need to be implemented to enable any future revised LTC DCO application to clearly establish the environmental acceptability of all proposed utilities diversions, including specifically each proposed utilities NSIP in accordance with relevant requirements set out within EN-1, EN-4 and EN-5. In particular, the ES needs to provide clearer assessments of effects generated by individual or multiple diversions (either standalone impact or where a utilities diversion contributes to an impact alongside other elements of the Project).

### **Mitigation and Monitoring**

- i. Define clear, consistent and comprehensive criteria for:
  - a. Identification of candidate locations for potential OHL undergrounding; and
  - b. Consideration of whether undergrounding at each of the candidate locations should be pursued or discounted.

Selected criteria should cover all relevant environmental, social and economic considerations and should be applied consistently to fully address the tests set out in paragraph 2.8.9 of NPS EN-5.

- ii. Amend the CoCP to include references to individual proposed utilities NSIP diversions where relevant.
- iii. Extend the REAC to explicitly state that:
  - a. Required actions and commitments apply to all elements of the Project, including the utilities NSIPS; and
  - b. For the avoidance of doubt, this includes all 'Non-Contestable' works to be carried out by utilities statutory undertakers rather than by HE. All REAC measures relevant to proposed utilities works (Contestable and Non-Contestable) must be secured within the Environmental Management Plan (EMP2) and thereafter implemented.

## Technical Document Comment Summaries

For completeness, this section provides summaries of the key points made in each of the Appendices that follow and hence cover the 13 key technical and public-facing documents that were part of this consultation, as follows:

### 2.20 Outline Traffic Management Plan for Construction (oTMPfC)

#### Summary

- 2.20.1 The updated version of the oTMPfC has addressed some of the earlier comments made by the Council. Further information has been provided in relation to management and governance procedures and proposed traffic management scheme information. In particular this includes:
  - i. Committing to the appointment of a Traffic Manager by the scheme promoter with further information on their roles and responsibilities.
  - ii. Further details around governance arrangements including the proposed Traffic Management Forum and its membership, roles and responsibilities etc.
  - iii. Some further information around proposed monitoring of traffic management and production of monitoring reports.
  - iv. A full list of proposed traffic management schemes (short and long-term) associated with the main works, tunnelling and utilities work.
- 2.20.2 These changes are welcomed, however, the oTMPfC still only provides a broad range of measures and processes and the Council still believes that it does not provide sufficient detail, certainty or commitment and a clear governance process to give comfort that the temporary traffic management measures will be acceptably controlled and managed or that impacts on the operation of the LRN and local communities within Thurrock will be suitably mitigated. The headline concerns are related to:
  - i. The lack of a clear set of traffic management principles, objectives and commitments set by the scheme promoter to clearly direct the contractor in the production and implementation of TMPs and associated schemes across all phases of work. The suite of TMPs must be co-ordinated, current and relevant.
  - ii. The proposed disapplication of the council's network management powers, including the current street works permitting systems and the consenting on temporary Traffic

Regulation Orders, to which Thurrock Council is not able to agree. The changes would impact on the Council's ability to manage effectively the LRN including works being carried out as part of the delivery of the Project and also works carried out by other major projects and day to day operations on the LRN.

- iii. The need for a clear commitment in this document by the promoter and all contractors (and their sub-contractors and suppliers) to exemplary levels of best practice in safety, efficiency and environmental protection in relation to construction logistics management and fleet operation. There should be a requirement for contractors to operate to the Construction Logistics and Community Safety Standard (CLOCS) and Fleet Operator Recognition System (FORS) Silver Standard with progression to Gold.
  - iv. The lack of emphasise in the document on the importance of managing construction traffic and traffic management scheme interfaces with, and impacts on, pedestrians, cyclists and other vulnerable road users.
  - v. The need for further information on proposed monitoring, reporting and enforcement arrangements that will be put in place across all construction phases – particularly in relation the scope of monitoring proposed and KPIs that will be regularly reported. Effective enforcement mechanisms also need to be clearly set out in the document.
  - vi. The need for further definition of the management and governance procedures that will be required and put in place during the construction phases.
  - vii. The management and reporting processes of incidents and emergencies which affect the operation of the travel networks – which should include contingency planning and defined contingency routes and the reporting processes of the incidents.
  - viii. The details on the commitments that will be required of the contractors prior to and during the construction works and in the decommissioning and hand-over phases.
  - ix. Recognition and inclusion within the strategic and local Transport Planning modelling of the significant movements of LGV construction related traffic as well as the HGVs.
  - x. A Promoter led Requirements on the co-ordination of the contractors to provide detailed appraisal of the effects on the road network of the delivery stages of the Project, in particular the delivery of the A13 interchange and the impacts on the operations of the network.
  - xi. Detail on the designated access routes that would be managed/enforced and the consequences of non-compliance.
  - xii. The management and co-ordination of protections to the affected LRN and how that would be set out within and operating agreement.
- 2.20.3 It is the Council's opinion, however, that it should be the approving body for construction period management plans including the contractors' CTMPs. If it is determined that this is not to be the case then the governance of those TMPs and the process for agreeing them, prior to approval by the SoS, needs to be set out in the oTMPfc. This would give direction and clarity to the appointed contractors and the Council. HE refers to reporting to the SoS that consultation with local authorities has been undertaken, however, the evidence to the SoS must include a report as to what feedback was received and how it has been addressed. This is fundamental if the local authority is not to be the approving body. The local authority must have the right to respond to the report and a system of conflict resolution identified.
- 2.20.4 The document does not provide currently a robust enough framework from which subsequent detailed TMPs would be developed by the appointed Contractors.

## Recommendations

- 2.20.5 The oTMPfc must be a robust framework to provide a Certified/Control Document within the DCO and must be clear and explicit as to the commitment the Promoter requires its contractors to meet and observe. That level of clarity cannot be left to future developments of the resultant TMPs.
- 2.20.6 The table within this response document sets out points of observation and concern relating to the updated oTMPfc as submitted by the Promoter. These points and in particular the key concerns outlined above should be addressed by the Promoter.
- 2.20.7 The key points include that Thurrock Council does not agree with the current proposals to disapply powers related to the street works permitting systems or the 'Making' of temporary Traffic Regulation Orders by the Promoter on the LRN. Revisions to these proposals must be agreed prior to the certification of the oTMPfc.
- 2.20.8 The needs to be a clear set of traffic management principles and commitments set by the scheme promoter in the outline document to direct the contractor in the production and implementation of their TMPs.
- 2.20.9 Further detail should be provided (as set out in the comments table) in relation to mechanisms for governance, co-ordination, monitoring and enforcement of the TMPs and the enshrined processes must be set within the oTMPfc to give a structure to which Thurrock Council can agree and that the contractors can conform.

## 2.21 Framework Construction Travel Plan (FCTP)

### Summary

- 2.21.1 The Council acknowledges the principal objectives set out within the FCTP document but remains unconvinced that HE is suitably committed to mitigating the travel effects of the workforce employed to deliver the LTC project.
- 2.21.2 The FCTP document would be used to inform the development of contractor led SSTPs, however the FCTP must set the bar much higher to incentivise the contractors to facilitate and encourage active travel and environmentally sound means of travel.
- 2.21.3 We have indicated that the FCTP does not recognise the full policy and guidance base for the Governments drive to switch to sustainable travel and that the FCTP does not capture or encourage sustainable travel and does not reflect the substantial feedback that the Council, has already provided, much of which is captured within the Hatch Report of October 2020.
- 2.21.4 The FCTP must set robust rules of governance for the travel plan that will be adopted and implemented through the TPLG. This must include roles and responsibilities of the members of the TPLG, arrangements for decision making and dispute resolution, clear targets for the travel plan, and robust mechanisms for attainment of the targets through the DCO.
- 2.21.5 We have set out key themes and detailed observations on which HE must reflect and respond before the FCTP is deemed appropriate for this Project.

### Recommendations

- 2.21.6 A range of comments and feedback are given within this response document, and HE is encouraged to reflect on those and review the FCTP to develop a more robust and effective document which will derive equivalent robust and effective SSTPs following consent of the DCO.



## 2.22 Wider Networks Impacts Management and Monitoring Plan

### Summary and Recommendations

- 2.22.1 A range of comments on the Wider Network Impacts Management and Monitoring Plan are provided above which should be responded to or address in an updated version of the document.
- 2.22.2 The key issues identified and recommendations are:
- i. This plan only relates to the monitoring of operational impacts on the wider network once the project has opened. A monitoring plan for the construction period is required and should be set out separately or as part of the oTMPfc.
  - ii. It is unclear if and how this plan links to wider project monitoring and evaluation and the scope of that work includes assessing impacts on travel demand/behaviour, impacts on economy, air quality, noise, carbon. Further clarity is required in the plan.
  - iii. The plan suggests that the need for interventions on the wider road network to mitigate LTC impacts is not yet determined. The council believes there is evidence of the need for interventions at a number of locations (including those at 2.2).
  - iv. It is critical the scope of this plan also considers impacts on the local bus network (particularly impacts on journey times and journey time reliability) and non-motorised users e.g. pedestrians and cyclists. This should be included in the plan.
  - v. The plan suggests that monitoring work will identify areas for intervention and describes in general terms work required to develop and assess interventions and secure funding. However, it portrays a vague and open-ended process with little funding security for interventions at the end of the process. It is unclear who is responsible for this work, its scope, how and who it will be managed and governed by and who will fund it. Further clarity and definition of this process is needed.
  - vi. The plan at present does not clearly define the highway network performance criteria/indicators proposed and the level of change required that triggers the need for intervention. Further work to define these is required.
  - vii. The plan provides no commitment to mitigate wider impacts on the road network post construction. Nor does it indicate there is secured mechanism in place to fund the delivery of required interventions. There is also no commitment to funding the work that will be required to identify, assess, and develop business cases etc for interventions.
  - viii. The document suggests that timeline for the identification of any areas requiring intervention and work to select suitable interventions will only begin after all the periods of traffic monitoring have been completed (data collection commitment is to one year after opening and five years post-opening). There should be a recognition of the potential need to fast-track scheme development work and/or delivery of early interventions earlier in the monitoring period (after year one monitoring).

## 2.23 Outline Site Waste Management Plan (oSWMP)

### Summary

- 2.23.1 The document builds upon the initial review of the oSWMP that Thurrock sent to HE on 22<sup>nd</sup> March 2021. Within this review of the consultation draft of the oSWMP we have identified

whether we consider the original comments have been addressed appropriately and also identified where additional concerns have been raised.

- 2.23.2 As drafted the oSWMP is insufficiently developed to allow the Council to draw a considered opinion on the management of the wastes from the project. The full range of waste arisings are not broken down by source nor by the timing of their production, the scheme targets are unclear in their nature and do not appear to have been developed against any project specific basis. There is no information on how wastes will be managed to ensure that the project attains the standards/targets that have been set nor complies with regulatory requirements.

## Recommendations

- 2.23.3 The oSWMP needs to be developed to ensure that:

- i. The basis for the targets within it are clear.
- ii. The basis for the estimations of waste arisings are provided.
- iii. The waste arisings are considered both with regard to where and when they will arise.
- iv. The approach to managing the wastes is clear to demonstrate regulatory compliance can be maintained.
- v. The approach to the recording, compiling and reporting of the wastes managed is appropriate for the scale of the project.
- vi. The potential offtake locations for the wastes to be taken from the site are clearly identified and their potential to manage the waste arising over time is identified.

- 2.23.4 The oSWMP, oMHP, MMP and EMA are complementary documents, however they need to be able to be considered as standalone documents and all relevant evidence and information should be presented within each document.

- 2.23.5 It is essential that the Council pursues an acceptable outcome for the draft oSWMP prior to submission of the DCOv2 to protect its interests with regards to the management of wastes within and through the Borough. Once consent for the project is granted, the Council will have very limited opportunity to influence the detailed strategies which will have a significant impact on the Borough for the many years of construction.

## 2.24 Outline Materials Handling Plan (oMHP)

### Summary

- 2.24.1 It is considered that the document presents insufficient evidence to demonstrate that a robust assessment has been undertaken to define the quantum and timing of the various materials and that appropriate approaches to the handling have been identified. As the oMHP is currently presented it is considered that there is insufficient confidence in the viability of the proposed plan or the mechanisms for governance and management of the procedures.
- 2.24.2 There is no incentive to contractors to adopt environmentally sound processes and no requirement for corrective action where targets are not met.

## Recommendations

2.24.3 We recommend that the revised document provides:

- i. Detail of the calculations and assessments which are stated to have been undertaken.
- ii. Clarity on the types and quantities of arisings (Topsoil, Made Ground identified as chemically and physically suitable for re-use, Natural Ground that meets the requirement and are excluded from the scope of the WFD, Made Ground identified as not chemically and/or physically suitable for re-use, Natural Ground identified as not suitable for re-use).
- iii. Criteria used to decide suitability for re-use.
- iv. For each type of spoil arising requiring off-site disposal provide a waste classification assessment to determine whether Hazardous or Non Hazardous. A second stage of acceptance assessment (informed by WAC testing as appropriate) to inform the identification of likely destination landfill – which should consider the location and timing of generation.
- v. Clarity on the destination compound/location of stockpiles and duration.
- vi. Clarity on the phased vehicles movements associated with the works.
- vii. Information on the receiving sites identified to provide comfort that they will be able to accept the wastes generated at the point that they are exported from the site.
- viii. An assessment of the potential for alternative transportation measures to be incorporated based upon the phased movement of materials identified within the oMHP and those that are not as yet considered within the oMHP.
- ix. Definitive commitments to targets and aspirations and to incentivise contractors to reduce road mileage and materials mileage and to comply with stretching targets.
- x. The governance processes and dispute mechanisms.

## 2.25 Code of Construction Practice (CoCP)

### Summary

- i. Further detailed comments, for many of actions and/or recommendations, are set out in the Summary Review and Appendices of the Council's Consultation Response, and in previous Council comments on the 'Worker Accommodation Summary' and DCOv1 Order documents.
- ii. Some issues/concerns have not yet been resolved by HE, for example, there are unresolved concerns about the safety of the interchange between LTC and the Orsett Cock Roundabout. In the majority of instances, further details/information are awaited.
- iii. There are a number of items not part of this consultation or still missing from the CoCP, for example, HE should provide a Low Emissions Strategy for Construction, which is only partly done in the Carbon and Energy Plan.
- iv. Some measures are still awaited in DCOv2, such as the impact of mitigation measures such as earth works and planting, upon the historic character of the landscape.
- v. Most Hatch measures are not secured and still under discussion.

- vi. Many principles; approaches to construction; control measures; standards; and targets are still unconfirmed by HE.
- vii. The Council does not accept that the Secretary of State should be the determining body for the discharge of the DCO Requirement relating to the Environmental Management Plans.
- viii. Some actions are only covered in REAC and not included in the CoCP.

## **Recommendations**

- i. HE should refer to the Council's consultation responses set out in the Summary Review and Appendices, as well as previous Council comments on the 'Worker Accommodation Summary' document and DCOv1 Order.
- ii. Issues/concerns detailed in the table above need to be fully resolved by HE, and the Council need to be informed of how these concerns are to be resolved.
- iii. Information that is missing from the consultation (and the CoCP) need to be included.
- iv. DCOv2 needs to include full details, for example, mitigation measures relating to the impact of earthworks and planting upon the historic character of the landscape.
- v. All Hatch Measures need to be confirmed and secured.
- vi. HE need to confirm and secure: principles; approaches to construction; control measures; standards; and targets, either through the CoCP and/or REAC.
- vii. The Council should be the determining body for the discharge of the DCO Requirement relating to the Environmental Management Plans.
- viii. Some actions are only covered in REAC and require inclusion in the CoCP.

## **2.26 Register of Environmental Actions and Commitments (REAC)**

### **Summary**

- i. There is no sequence to the order of REAC topics and it should follow the sequence in the topics within the ES chapters. The REAC document is all mixed up and therefore difficult to follow, e.g. 'GS' on page 53 and then on pages 66-74. There are potential repeats within the REAC document, e.g. TB on Pp55-58 and again with further changes on Pp101-106; and for GS and LS and NV.
- ii. The Council has provided new comments and queries for updated REAC (June 2021) and further comments (1-24 in the table below) on the REAC, which are set out in the table below.
- iii. There are a number of commitments/details missing from the REAC, for example, record of Baker Street Windmill setting not mentioned (CH NEW); no direct reference to the economy or local employment/skills commitments or the Skills and Legacy Plan (Further comments (7)); and various others.
- iv. Remaining outstanding information/issues/queries and, in some instances, no further adequate information has been supplied from HE in relation to issues previously raised.
- v. Wording in some REAC commitments should be amended to provide clarity/correction.

- vi. REAC commitments could go further to improve conditions/outcomes, for example, including an incentive for more ambitious carbon reduction targets should be included (CC002).
- vii. A number of documents that are listed, where the detail will still need to be finalised for DCOv2, have not been viewed by the Council.
- viii. The detail for many REAC commitments is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion. Need to continue to review this, as the position is unchanged.
- ix. There is a need to cross reference some REAC commitments for avoidance of doubt, for example, LV001 and LV028.
- x. The Council continues to be concerned that some issues are not assessed within the Environmental Statement, for example, the effects of the scheme on local traffic (including all vulnerable users) for either the construction period or the operational phase.
- xi. LV029 stated in updated REAC as not used. What is the rationale for this change and its removal?
- xii. Lack of adequate mitigation measures in regard to some commitments, for example, hazardous substances (MW005), use of electric/hybrid vehicles (AQ001) and 'further comments (1)' cultural heritage.
- xiii. Further detail will need to be submitted to the Council at the detailed design stage for many commitments, for example, demonstrating that SuDS Strategy meets all of the LLFA's requirements (RWE025).

## Recommendations

- i. The order of the REAC should follow the sequence of topic chapters in the ES. Remove potential repeats within the REAC document, e.g., TB on Pp55-58 and again with further changes on Pp101-106; and for GS and LS and NV.
- ii. Address the Council's 'further comments' (1-24) on the REAC, which are additional to actions/recommendations on specific REAC commitments. These comments need to be addressed by HE and provide the Council with further information and/or clarification.
- iii. Ensure that all commitments/detail that is currently missing from the REAC, are included in the next iteration.
- iv. There is still a need for further information from HE on outstanding information/issues/queries.
- v. Wording in some REAC commitments should be amended to provide clarity/correction.
- vi. Change and improve REAC commitment wording to help improve conditions/outcomes.
- vii. Where the detail of documents will still need to be finalised for DCOv2 - the Council will be a consultee and need to review.
- viii. The detail for many REAC commitments is not yet available and would be considered during detail design. LTC is aware of the comment made by the Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion. Need to continue to review this, as the position is unchanged.



- ix. There is a need to cross reference some REAC commitments for avoidance of doubt, for example, LV001 and LV028.
- x. Ensure that all the right issues are assessed within the Environmental Statement.
- xi. LV029 stated in updated REAC as not used. What is the rationale for this change and its removal?
- xii. HE need to ensure adequate mitigation measures are set out and secured, in regard to REAC commitments.
- xiii. Provide further detail to the Council at detailed design stage for many commitments, for example, demonstrating that SuDS Strategy meets all of the LLFA's requirements (RWE025).

## **2.27 DCO Schedule 2 Requirements and Explanatory Memorandum**

### **Summary**

- 2.27.1 The requirements in Schedule 2 are key element to ensuring the authorised development is undertaken appropriately and minimises any negative impact on local residents and infrastructure. The Council has a number of concerns. These include:
- i. Who is the discharging authority.
  - ii. How consultation with relevant planning authorities and highway authorities is undertaken.
  - iii. The impact of certain pre-commencement works.
  - iv. Mechanisms to ensure that key documents can change over time as a response to changes to the highways network and as a result of monitoring.
  - v. A limit of the proposed development.
  - vi. How 15% biodiversity net gain is going to be secured.
  - vii. Which documents will be considered 'control documents'.
  - viii. The consideration of contaminated land.
  - ix. Implementation of the relevant EMP.
  - x. Timeframes for the submission of the LEMP.
  - xi. The management of archaeological interests.
  - xii. Traffic management.
  - xiii. The application of the council's traffic management permit system to the authorised development.
  - xiv. The deemed approval in relation to the traveller site.
  - xv. Compliance with the indicative layout plan in connection with the traveller site.
  - xvi. Traffic monitoring.

- 2.27.2 These are considered in **Appendix D**. However, it is essential that these points are engaged with, so the Examining Authority has sufficient information to make an informed decision about key aspects of how it is proposed that the authorised development is to be controlled and unnecessary negative consequences avoided.

## 2.28 Design Principles

### Summary

- 2.28.1 This document sets out the Council's comments on the Draft Design Principles and responds only to the sections relating to the north of the river.
- 2.28.2 It is recognised that the matter of commonality of design of structures is set out in Design Principles STR.01 and STR.06. However, this largely deals only with 'Project Enhanced Structures' and should apply to all structures to reflect their landscape context and this should be amended accordingly within Section 3.5. This is considered important because the three main contracts to deliver the LTC scheme (Roads North, Roads South and Tunnels) may well take a differing approach to design and by providing these amended and additional Design Principles this should be avoided.
- 2.28.3 The key themes of concern to the Council are:
- i. HE are working with land promoters around East Tilbury (Iceni POT, the landowners) and whilst we have been involved in some of those conversations, we know we are not party to all. This could be undermining the Local Plan process and conflicts with wider borough objectives. This could also be a conflict of interest if Thurrock are not party to conversations.
  - ii. There lacks any priority in the principles, what takes priority over what when it comes to making decisions besides cost?
  - iii. A disproportionate emphasis on the drivers 20 minutes of experience over that of residents who will live beside the project for decades and generations to come.
  - iv. There is no mention of specialisms that are needed to achieve the principles; however, team assembly is one of the most important aspects of achieving good design. Similarly, who leads the project is important. We can see that this has been overly led by engineers to problem solve a highways project and is missing a landscape or design led approach. We are concerned about how the project is taken forward with the future team.
  - v. Tilbury is an area of deprivation and yet the Tilbury Fields project and the viaduct are missed opportunities for a park and a well-designed structure. It should be an enhanced project. Design discussions are ongoing regarding Tilbury Fields and may result in an additional Design Principle.
  - vi. The enhanced projects are what should be the minimum for all structures, particularly Tilbury Viaduct as the area of Tilbury is an area of multiple deprivation and the lack of design quality measures for this area will only worsen the environment for this population. The priority and logic for which structures are enhanced, and which are not enhanced remains unclear. The specification and detail for the structures that are not enhanced is not clear.
  - vii. The ongoing issue of it not being a multi-modal route when public transport is more than just buses. It is so far from future-proof that it could never be good value for money. There is no mention of bus routes or bus priority within the Design Principles and the design does not enable buses to serve growth locations (residential or employment). Whilst HE state that public transport is not prohibited, the current design does not promote public

transport due to the lack of junctions serving local areas and thus preventing a comprehensive local network on this proposed major route. Junctions and passive provision are in discussion.

- viii. The Council's issues raised in October 2020 regarding the seven Scheme Objectives remain and need to be addressed by HE.
- ix. It is vital that the emerging provision for walking, cycling and horse riding (WCH) is designed to a high specification to ensure that it is capable of meeting increasing levels of use from non-drivers. The final Design Principles should reflect the best practice set out in LTN 1/20.
- x. There is mention of acoustic barriers throughout the principles but there are no guiding principles as to how these will be handled.
- xi. The Two Forts Way is an important link through the south of the borough and it is essential that LTC helps ensure that it is fully accessible for walkers and cyclists.

## Recommendations

2.28.4 HE should address the Council's comments set out in Table 2.1 above. Key recommendations are set out below:

- i. Thurrock Council should be involved in all discussions HE and land promoters around East Tilbury (Iceni POT, the landowners), to feed into the Local Plan process and meet wider borough objectives.
- ii. HE should prioritise principles, to provide evidence to stakeholders on what takes priority over what when it comes to making decisions besides cost.
- iii. Reduce the emphasis on the drivers 20 minutes of experience over that of residents who will live beside the project for decades and generations to come.
- iv. Reference specialisms that are needed to achieve the principles. Ensure a landscape/design led approach by including a landscape/design expert in the lead team.
- v. Tilbury Fields project and the viaduct should include opportunities for a park and a well-designed structure. It should be an enhanced project.
- vi. Ensure the enhanced projects are the minimum for all structures. The priority and logic for which structures are enhanced, and which are not enhanced should be made clear and the specification and detail for the structures that are not enhanced should also be made clear.
- vii. Provide a multi-modal route which is future-proof.
- viii. The Council's issues regarding the Scheme Objectives in October 2020 remain and need to be addressed by HE.
- ix. Ensure that all WCH works are designed in accordance with LTN 1/20.
- x. Guiding principles for the acoustic barriers should be provided. These need to be as naturalistic as possible and blended in with the landscape, as opposed to cost-effective large opaque fencing panels which further segregation of the landscape. HE need to set out what acoustic barrier typologies or qualities are to be prioritised and typical sections or precedent images are needed.

- xi. Ensure that Two Forts Way is designed to be fully accessible for walkers and cyclists.

## 2.29 Outline Landscape and Ecology Management Plan (oLEMP)

### Summary

- 2.29.1 The draft oLEMP is yet to consider several of the area's most adversely impacted by the scheme within the Borough, for example, areas around the north portal, Coalhouse Fort and Orsett Fen. Similarly, there are still discussions being held with the LTC team regarding the Ron Evans compensation land. The Council wishes to see an updated document covering these areas prior to DCO submission.
- 2.29.2 The emerging structure for the OLEMP is considered to offer a way to present the developing landscape and ecology mitigation requirements in a useable format; however, it is important that the EMP in particular is restructured to ensure consistency.
- 2.29.3 The Council recognises that the development of the oLEMP and subsequent LEMP will be iterative as designs progress. It is therefore keen to be actively involved with the ongoing development of these documents
- 2.29.4 As the landscape and mitigation measures develop it will be necessary to consider how to better present the information between the LEMP and EMP as the existing plans within the EMP are not fit for purpose.

### Recommendations

To continue to engage with the Council regarding the emerging landscape and ecological mitigation requirements and how these will be delivered.

## 2.30 Construction Update

### Summary and Recommendations

- 2.30.1 The construction update from HE provides further information in relation to:
  - i. Project wide approaches to construction.
  - ii. Works proposed and compound locations by geographical area (Sections A, B, C, D).
  - iii. Project wide impacts and approach to mitigation.
- 2.30.2 Key issues and recommendations identified above by the Council can be summarised as:
  - i. **Control Plan and Control Documents** – It is not clear how the control plan and the multiple processes and activities set out within them will be managed, co-ordinated and governed by HE during the implementation process. *Further clarity from HE is required.*
  - ii. **Governance and Engagement** – At present multiple forums and groups are proposed throughout the consultation document – Joint Operations Forum (JOF), Traffic Management Forum, Travel Plan Liaison Group, Community Liaison Forums etc – but this currently appears disjointed and uncoordinated. The Council would expect (as with other major transport schemes e.g. Silvertown Tunnel) that HE establishes an overarching Implementation Group made up of representatives (at a senior executive level) of all the impacted local planning and highway authorities and the Department for Transport. HE should be required to consult with this implementation group on matters related to

planning, constructing and operating the LTC scheme. *Further clarity from HE is required on proposed governance arrangements.*

- iii. **Monitoring Road Network Impacts during Construction** - It is unclear within this and various other documents e.g. oTMPfc, FCTP as to what road network impact monitoring is proposed before and during the construction period. Monitoring will be required to ensure impacts of the construction logistics, workforce travel and traffic management schemes required on the road network are understood, being actively managed/enforced and impacts on local communities are being mitigated. The oTMPfc proposes a monitoring report but the scope of monitoring proposed is not clear, no monitoring scheme or KPIs are provided in any detail. The FTP suggests monitoring will take place. *Further clarity from HE is required on proposed construction monitoring arrangements.*
- iv. **Wider Outcome Monitoring and Evaluation** – The monitoring that is proposed is very traffic orientated. This Council would have expected to see this road network impact work to form part of a much wider monitoring and evaluation plan for the scheme (including covering the construction period itself – see comments above) to demonstrate the scheme outcomes and impacts in a much wider sense considering a range of social, economic and environmental issues. *Further clarity from HE is required on proposed wider outcome monitoring arrangements.*
- v. **Materials Handling** - The Council is concerned that insufficient work has been undertaken to enable HE to make firm commitments as to the type and amount of material that can be transported by marine transport. At present whilst contractors are encouraged to investigate this further as part of their MHPs and TMPs there is no firm commitment to do so. Maximising use of marine transport will help reduce impacts on the road network and local communities during the construction period and help reduce the schemes environmental and carbon impacts. *A firmer commitment/target for use of marine transport should be made by HE.*
- vi. **Construction Logistics Plans (CLPs)** – the Code of Construction Practice (CoCP) includes a commitment to contractors producing a CLP and HE has also committed to contractors meeting best practice standards for Construction Logistics and Fleet Management as set out in CLOCS and FORS which is welcomed. This will require the production of a detailed CLP by contractors and notes their importance in planning, managing and monitoring construction logistics. *The Council believes the critical role and importance of the CLP needs to be highlighted further by HE and it should form a key control document.*
- vii. **Major Utilities and Viaduct Works** – there are some very significant elements of work for which limited information is provided regarding the nature of works and likely impacts e.g. National Grid power lines, UKPN proposals, Tilbury Viaduct, Chadwell St Mary Link, Orsett Heath Viaduct. *Further details are requested by the Council.*
- viii. **Construction Traffic Impacts** – the Council's report 'Thurrock Cordon Model Construction Modelling Review' provides a high-level review of the impact of the 11 construction phases (throughout the development of LTC as set out within Chapter 8 of the LTC DCO Transport Assessment) on Thurrock's highway network, providing an indication of the forecast impact arising from the traffic arriving and departing at the construction compounds, as well as the temporary diversions and road closures during the construction period. This report raises a series of concerns the Council has regarding high volumes of construction traffic at a wide range of locations on the local Thurrock Road network. It identifies the need for further detailed assessment where there is significant impact and for further details from HE on the mitigation proposed. *Construction Traffic Modelling - No updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures.*



- ix. **Impacts on Bus Networks** – Some increases in bus journey times are acknowledged here and in the ward impact summaries. However, the Council is concerned that there is insufficient recognition here and throughout HE's consultation material regarding impacts on the local bus network during the construction period and in particular how this will be monitored and what mitigation measures will be taken to reduce impacts on operators and importantly on bus passengers. *HE should be indicating a greater commitment to mitigating impacts on the local bus networks and funding should be made available.*
- x. **Cultural Heritage** – In terms of cultural heritage, particularly buildings, the issue is that historic/listed buildings and conservation areas (including the three Grade II listed buildings being demolished) are not mentioned at all, so the solution is for HE to include reference to them.
- xi. **Construction Noise and Vibration Assessment** - Currently only indicative impact predictions are available (as charted graphically in the Ward Impact Summaries) in respect of construction noise, and these are based on an earlier versions of the project. The revised opening year and traffic management arrangements, together with a requirement for further modelling, mean that quantitative predictions may vary, possibly significantly, and it is stated an update will not be available prior to DCO application (chapter 7.5 (page 201) - Recent updates to our environmental assessments). The council would request that quantitative construction noise impacts are made available prior to DCO submission as this is vital evidence that helps understand the impacts to enable analysis, review and discussion, so as to determine appropriate mitigation.
- xii. **Noise and Air Quality Impacts** – The assessments for noise, air quality and dust have not been updated within the document. This then does not allow for the correct identification of impacts and the appropriate mitigation measures as relates to these environmental factors. Assessment for noise, air quality and dust should cover the whole of the 6 to 8 years of construction so as to aid understanding of the effects on communities and any changes to health inequalities over this time period.

## 2.31 Operations Update

2.31.1 Key issues and recommendations identified by the Council can be summarised as:

- i. **Impacts on the Local Road Network** – The document seeks to downplay the effects the LTC will have on the operation of the LRN. This matter has been raised by the Council through many responses to information provided by HE and at many engagement meetings during the years building up to the aborted October 2020 DCO submission, as well as in the engagement period since its withdrawal. Substantive technical evidence has been provided by the Council to HE to demonstrate its concerns and responses on those concerns are still required.
- ii. **Modelling** – The consultation material appears to be based on updated modelling evidence. However, this has not been provided with the consultation, meaning that the Council cannot fully comment on the documents provided. The aspects outlined within the Council's LTC Review of Transport Planning Evidence from Thurrock Council issued in March 2021 remain of concern.
- iii. **Local Traffic Counts** – The Council is concerned that no local road traffic counts (except on the A13) have been used to calibrate or validate the model. A comparison of the model flows compared to observed flows undertaken by Thurrock shows that, in general, traffic flows are low on local roads in the base year model and in particular, low on the A1013; links near Orsett Cock; on A1014 The Manorway; and A1089 near ASDA. The Council has consistently and repeatedly raised concerns at meetings and via representations that the impacts on the local roads and junctions are likely to be underestimated as a result of the lower level of traffic on the local roads. Detailed junction assessments should be carried out, in any case, at key pressure points on the network, using accurate baseline

traffic data, such as: Orsett Cock, The Manorway roundabout, ASDA roundabout, Daneholes roundabout and Marshfoot Road junction.

- iv. **Walking, Cycling and Public Transport** – HE is required to work towards a strategic network which provides for strong connections for walking cycling and public transport. It is the Council's opinion that the proposals do not provide a strong network for walking and cycling, and that the corridor hinders public transport connectivity within Thurrock and does not promote opportunities for cross river public transport connections. Mitigation recognises the importance of maintaining connectivity for walkers, cyclists and horse-riders and providing alternatives for vehicle use; however, the Ward Summaries identify several key routes will be closed for at least 5 years with no details yet of possible diversions. It is not acceptable to reconnect severed routes and maintain that that is an improvement in the network provision or is mitigation.
- v. **Cultural Heritage** – In terms of cultural heritage, particularly buildings, the issue is that historic/listed buildings and conservation areas (including the three Grade II listed buildings being demolished) are not mentioned, so the solution is for HE to include reference to them. The Operations Update does not mention cultural heritage at all.
- vi. **Surface Water and the Order Limits** – Order limits could be affected by changes to surface water storage structures, of which the Council has concerns over calculated discharge rates and ground water levels. HE should undertake detailed Ground Investigation work at this stage of the project to determine if the Order Limits will be affected by changes to surface water storage structures and the drainage strategy.
- vii. **Human Health** – The Environmental Impacts section of the document does not include a section on population and human health, which is to be included within the ES. Further information is required on the impact on Linford Allotments so the possible effects on human behaviour can be considered. Concerns are raised on the following sport and recreation facilities as they will be used by the local community:
  - a. Orsett Park Royals Football Club pitches.
  - b. Orsett Golf Club.
  - c. Thurrock Rugby Football.
  - d. Mardyke Valley/North Road.
  - e. Grangewaters Outdoor Education Centre car park.
  - f. Top Meadow Golf Club.
- viii. **Air Quality** – HE claim that LTC will improve the overall air quality across the region. The Economic Appraisal submitted for the DCOv1 application however showed an overall disbenefit to the area, hence contradicting this claim. Updated GIS data should be provided to the Council for review to assess the air quality modelling for the revised transport model of this consultation as the summary provided in the Operations Update relates to the withdrawn DCO application.
- ix. **Noise** – Likewise, the reported noise modelling summarised in the Operations Updated relates to the withdrawn DCO application. Therefore, the Council requests that updated noise model is shared with the Council, prior to the next DCO submission. This is required so that the impacts can be assessed.
- x. **Climate and Carbon** – The Decarbonisation Plan was issued by the Government in July 2021, outlining the commitments and actions needed to achieve the decarbonisation of

the transport system. HE should provide evidence and clarify how LTC fits into this plan, and how the measures will be incorporated.

- xi. **Map Reference Points** – Changes to the design are commented on by the Council, many of which the Council request further information on to understand the amendments. These include works in the river, the removal of the proposed jetty amendments to the Order Limits on Buckingham Hill Lane (set out on page 58-59 and 63), the Orsett Cock interchange, the proposed landscape design at the Mardyke Crossing and the design of Tilbury Fields which is subject to ongoing discussions.
- xii. **London Resort** – The current traffic modelling work shows no evidence that the impact of the resort has been included. With these flows included, it is very possible that any capacity is taken by the existing A1089 and mitigation at ASDA roundabout will prove even more necessary. The Tilbury area relies on a single access via the A1089, and local businesses may not be able to operate successfully with priority given to London Resort traffic.
- xiii. **Changes in Flow** – The Council has the following concerns, as outlined in the Report titled '*Review of the Effects of the LTC within Thurrock: DCO Cordon Model Review*':
  - a. Underestimation of base traffic flows, particularly at Orsett Cock, Manorway junction, A1013, A128/Rectory Road, and ASDA roundabout.
  - b. Increases in traffic flows at Orsett Cock and Manorway junctions.
  - c. Traffic flow increases on both the A13 and local roads including the A1014 The Manorway, London Road/Corringham Road, A1013 Stanford Road and A13/A176 junctions.
  - d. Adjustments have been made to zone loading points and addition of new network has been included without any model validation undertaken, thus resulting in local changes in traffic routeing and rat running, specifically noted at Rectory Road, Orsett. This also leads to concerns over an increase in traffic through Orsett village.
  - e. It is not known that as a result of the point above, whether traffic levels and therefore the delays at Orsett Cock are accurate representations of what could occur in the future with LTC in place.
  - f. HGV bans have been redefined; however, it is not known how new bans specifically related to port traffic would be enforced. There are no detailed proposals (Note: enforcement is already a challenge and LTC will increase the risk of HGVs using the routes).
  - g. Risk of higher use of Orsett Cock roundabout (and potentially The Manorway junction) for u-turning from the LTC to A1089 than modelled due to quicker journey times (and potential growth in traffic arriving from south of the River Thames and inaccurate future growth locations).
  - h. Risk of higher use of the A1013 and Daneholes roundabout and routes through Chadwell St Mary than modelled due to quicker journey times (and growth not reflective of the future growth locations).
  - i. The modelling shows there is an increase of nearly 14% total travel distance (pcu.kms/hr) with LTC, resulting in 9% to 11% increase in CO2 emissions and 6% to 7% increase in NOx.

The 'Junction Assessment and Mitigation Analysis' modelling shows that:

- a. The performance of some approaches to The Manorway and Orsett Cock roundabouts will be impacted by the introduction of LTC.
  - b. The off slips from the A13 at both The Manorway and Orsett Cock roundabouts are likely to block back on to the mainline and/or impact on the slip roads from the LTC.
  - c. The LTC causes the performance of the ASDA roundabout to significantly deteriorate.
  - d. Daneholes roundabout is at risk of regularly being used as a rat-run from the LTC, and any more significant use of the A1013 than modelled in LTAM would impact upon not only the traffic, but bus services that operate through the junction.
- xiv. **Bus Routes** – The Council request evidence that during this consultation, discussion with bus service providers have been made. Adverse impacts on bus journeys are a concern for employment areas within Thurrock, particularly from Basildon. Mitigation should be considered to improve the bus journeys for this route. National and government policy (NPS NN and GD 300) require new strategic infrastructure, like LTC, to provide for public transport connections, however HE states, without explanation, that *“there are currently no proposals to run local buses”*. The Council recommend this is reviewed.
- xv. **Operational Maps** – Additional scheme costs, flood risk and environmental disruption are the result of relocating proposed pond POS08-001 as a consequence of the additional junction immediately north of the Northern Portal tunnel entrance. HE should review the location of this structure with the view to limit its disturbance. The Council has noticed that the distance between drainage storage features is significant and ask HE to give consideration to using open SuDS features across the scheme. The Essex SuDS Design Guide outlines the LLFA policy, however, further details are required on the management of surface water run-off around the Northern Portal of the tunnel.

## 2.32 Ward Impact Summaries – North of the River: Parts 1 and 2

### Summary

- 2.32.1 This document sets out the Council's comments on the Ward Impact Summaries and responds only to the Wards north of the river.
- 2.32.2 The key themes of concern to the Council are:
- i. LTC will have long-term impacts and 6-8 years of disruption that may or may not be mitigated. Relevant to all wards, there is a lack of real benefits for the Council from LTC, in terms of provision of open space, increased connectivity, active travel, investment, and legacy in terms of local regeneration.
  - ii. Key strategic issues for existing communities and future growth, in all/multiple wards, are set out below:
    - a. Without guaranteed delivery of South Ockendon/TLR junctions or LRN mitigation schemes, there is no certainty that LTC will support connectivity, sustainable growth and the Local Plan.
    - b. Poor local connectivity and a failure to explicitly plan for and design a scheme with the objective of supporting the delivery of strategic sites for housing and economic growth including new Garden Village Communities and future port expansion.

- c. Need to address the impact of noise, air quality, severance and flood risk considerations which has led to an increase in land take in certain locations thereby further reducing the supply of land for development.
- d. Greater emphasis should be placed on active travel and public transport has been overlooked. The scheme provides enormous opportunity to enhance active travel and public transport the local level, which improves health and the environment, and mitigates against a range of adverse impacts such as air/noise pollution and relieving congestion.
- iii. Generic non-specific ward information is coming through into the ward summaries from technical and other documents, but it does not provide the level of granularity to inform ward level impacts relating to health and wellbeing of local residents.
- iv. Although health is being picked up in terms of the health profile that is provided within each ward summary it is not being carried through to the impacts and in determining what mitigation is required to support and protect the health and wellbeing of local residents. Similarly, health inequalities are mentioned, but there is no clear information about what mitigation will be employed to reduce these inequalities.
- v. Throughout each of the ward summary chapters' reference is made to changes in air quality, noise and other environmental factors as temporary but there is no clear definition of what is meant by the term 'temporary' in the context of the project. This should be made clearer to allow an informed understanding of potential impacts and we reserve the right to comment fully when this has been updated.
- vi. Throughout the ward summaries there is an inconsistent application of the methodology to different environmental elements. For example, mitigation measures to reduce the impact of light pollution at night is considered for heritage but there is no mention of this in relation to population and human health. Similarly, green bridges as a form of mitigation are mentioned in relation to habitats and biodiversity but omitted for population and human health.
- vii. General conclusions made about different environmental factors do not appear to be consistently applied across the environmental sections of the document. For example, in the Chadwell St Mary Ward Summary it is concluded that there will be no significant noise impacts in the noise and vibration section of the report. However, paragraph 630 and the corresponding bullet points state that there will be significant adverse effects relating to noise.
- viii. There is more up-to-date data which could be used to inform the health profiles for each ward summary. This information is available via Public Health England's Local Health website. We would also advise that HE ensure that all relevant ward level health data be included in each ward summary to ensure that all vulnerable groups and populations are accounted for, in determining impacts and associated mitigation needs
- ix. Only broad and non-specific information relating to factors that will affect the health and wellbeing of local residents in wards are outlined in this document. The impact of traffic and public transport links is included; however it is not explained how these effects will be felt in the surrounding wards by the local population.
- x. Although in the initial section it states that Archaeology is to be assessed within these wards this has not happened. The assessment of the Scheduled Monument at North Stifford is very poor. Considering this is a nationally important heritage asset equivalent to a grade I listed structure there is very little detail provided when as a result of LTC this will be completely destroyed. It is known that important non-designated assets will be destroyed, however there is no attempt within the ward summaries to describe their presence or the impact of the development on them. The document does not



appropriately assess the historic environment impacts, with the exclusion of the majority of the archaeological data. As a result of this omission there is no assessment of the archaeological impact of the road proposals. In some places the summary in the table does not correlate with the information within the more detailed text.

- xi. There is a high degree of uncertainty regarding the hazards and mitigation of historical contamination.
- xii. Feedback has been provided by the Council on cordon construction models for each ward. Updated construction modelling evidence has not been provided within the consultation, yet the consultation documents appear to be based upon this out-of-date data. Without this updated evidence, the Council cannot fully comment on the construction impacts relating to traffic.
- xiii. Further to the strategic modelling that HE is undertaking on the Strategic Road Network, detailed assessment should be carried out where there is significant impact on the LRN.
- xiv. During construction and operation, the effects of light pollution have not been considered, particularly in relation to 24/7 construction hours and in wards that already have existing health issues.
- xv. Increases in traffic on local roads will detrimentally affect air quality. In this response the Council has highlighted concerns in the following areas:
  - a. Tilbury Fields.
  - b. Buckingham Road (Linford).
  - c. The A1089.
  - d. Dock Road and Calcutta Road.
  - e. Fort Road.
  - f. The A13.
- xvi. The Council is concerned that insufficient work has been undertaken to enable HE to make firm commitments as to the type and amount of material that can be transported by marine transport including via PoT and PoT2. At present whilst contractors are encouraged to investigate this further as part of their MHPs and TMPs there is no firm commitment to do so. Maximising use of marine transport will help reduce impacts on the road network and local communities during the construction period and help reduce the schemes environmental and carbon impacts.
- xvii. Construction relating to tunnelling works at the northern tunnel compound in East Tilbury will be undertaken at night. This will have noise, vibration and health impacts.
- xvi. There are general statements and construction methodologies describing new bridges and structures being 'built offline' or 'temporarily realigned'. Given the scale of works required there is little specific information given in relation to these works within the consultation material.
- xvii. There is a lack of information on potential temporary diversions of several roads within various wards.

## Recommendations

- i. Real benefits in terms of provision of open space, increased connectivity, active travel, investment, and legacy in terms of local regeneration should be realised. Mitigation and other measures that will benefit the Council need to be legally binding through obligations, Agreements or independent monitoring and verification of CoCP, Travel Plans, wider network improvement, for example.
- ii. LTC needs to address the key strategic issues for existing communities and future growth, in all/multiple wards, as set out in summary paragraph ii. above.
- iii. Specific ward information should be provided in the ward summaries to inform ward level impacts relating to health and wellbeing of local residents.
- iv. Health should be carried through to the impacts and in determining what mitigation is required to support and protect the health and wellbeing of local residents. Similarly clear information about what mitigation will be employed to reduce health inequalities is needed.
- v. It needs to be made clear what is meant by 'temporary' in the context of the project when referencing changes in air quality, noise and other environmental factors.
- vi. The methodology should be applied consistently to different environmental elements throughout the ward summaries. See summary paragraph f. above for some examples of where this has not happened.
- vii. General conclusions made about different environmental factors and effects need to be applied consistently throughout the document.
- viii. More up-to-date data, available via Public Health England's Local Health website, could be used to inform the health profiles for each ward summary. We would also advise that HE ensure that all relevant ward level health data be included in each ward summary to ensure that all vulnerable groups and populations are accounted for, in determining impacts and associated mitigation needs
- ix. A further understanding of how closures, diversions and other traffic management measures will impact on different wards throughout the duration of the construction phase will be important in accurately determining appropriate mitigation measures for Walkers, Cyclists and Horse-riders. Where WCH routes are affected, appropriate publicity and clear, high quality signage should be used to inform local residents.
- x. The impact of the development on the non-designated assets needs to be identified, especially as the road running through these wards bisects one of the largest cropmark complexes in the County, many of which are associated to the scheduled monuments within or adjacent the corridor. To provide an accurate assessment of the impact of the proposal the archaeological deposits recorded in the Local Historic Environment Records need to be assessed as part of this phase of work. This has been undertaken as part of the initial work, but an understanding of the impact needs to feed into this document.
- xi. HE should identify whether or not there are credible potential sources of contamination, and although it is understood that further intrusive investigation and ground condition assessments are to take place during detailed design, their effects should be identified as core mitigation.
- xii. The updated construction modelling evidence, which the consultation documents appear to be based on, should be provided to the Council. Without this updated evidence, the Council cannot fully comment on the construction impacts relating to traffic.

- xiii. HE should undertake detailed traffic assessments where there is significant impact on the LRN (e.g., junction capacity assessments, shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.) and outline what mitigation is proposed to accommodate additional traffic. This should be detailed in the Traffic Assessment. Details should be provided on traffic monitoring and enforcement within wards, both before and during the construction period.
- xiv. Impacts from light pollution should be included during and post construction.
- xv. Additional air quality monitoring is required on local roads as this will affect residents.
- xvi. HE should make firm commitments as to the type and amount of material that can be transported by marine transport including via PoT and PoT2.
- xvii. Further information is needed to understand the mitigation in place for residents in the East Tilbury near the northern tunnel compound as construction work will occur at night.
- xviii. Additional site specific drawings and information are required by the council and other stakeholders on the final schemes design of bridges and structures. The scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community is also required.
- xix. The Council require more information when and when temporary road diversion within wards occur. Without this information, the Council cannot assess the impacts of these.

## **2.33 You Said We Did (YSWD)**

### **Summary**

- 2.33.1 This section does not provide a summary and recommendations for the YSWD report, as the detail is provided in the summary report and other appendices.
- 2.33.2 An overall comment about this YSWD document is that unlike the DCOv1 Consultation Report, which only acknowledged that 9 design changes had been made following 3 consultation (reported within the Council's Adequacy of Consultation response), the YSWD does the opposite.
- 2.33.3 Every single design or project change made following each of the previous consultations has now been listed and summarised in a series of Tables. Unfortunately, it is not clear that often the reasons for a change were not directly due to a consultation response, but as a direct response to required mitigation following further impact assessments or what a result of normal design development within the project; both of which should not be attributable to responses to consultation. Overall, this is considered false and misleading and clearer reasons for changes should be set out.
- 2.33.4 These claimed changes are provided in clear maps from Pages 352 – 381, but all they illustrate are changes that were reported in earlier consultations, but which are the only result of necessary scheme mitigation (such as noise barriers) or scheme design development (changes to utility diversions or the Mardyke Viaduct) and not responses to previous consultations. In addition, these maps do not show is the adequacy of some of these changes, which are challenged elsewhere in the Council's Consultation Response.

- 2.33.5 Furthermore, it is not clear from this YSWD document what additional material is offered beyond summarising the contents of the DCOv1 Consultation Report into a public facing document. Could this be clarified?
- 2.33.6 The subheadings under which the YSWD document is structured, such as 'need for LTC', 'preferred route selection' 'route north of the river' are considered too broad to be helpful and do not follow the necessary Ward breakdown in the Ward Summaries, which would be more helpful. It would have been more helpful to structure this document around the Wards to offer the public more clarity.
- 2.33.7 Clearly, HE is responding to a very narrow focused objective of relieving congestion at the Dartford Crossing. This is potentially at the cost to local communities and with unresolved impacts. LTC helps to resolve one historic problem but creates new ones for Thurrock. HE, in doing so, is not observing the Governments own aspirations to decarbonise the transport network and LTC scheme objectives that also include supporting sustainable local development.

### 3 Summary Response on HE Compensation Policy and Thurrock Council's Land Interests

#### 3.1 Summary of comments on 'Your Property and Compensation or Mitigation for the Effects of Our Road Proposals' Document

##### Summary

- 3.1.1 In the most part, the policy, 'Your property and compensation or mitigation for the effects of our road proposals', simply refers to and re-states legislation that provides LTC with options for mitigating scheme impact both to the environmental and to local residents.
- 3.1.2 The measures for local residents include options in respect of increased noise (including planting, noise insulation and noise payments), expenses for suitable temporary moves and off-line discretionary home purchase. The policies, in most cases, do not go further than the statutory position and provide limited comfort due to their discretionary nature and lack of specific details (including application process, response timeframe and support etc.). Further no support is offered for local businesses or other property uses outside of residential.

##### Recommendation

- 3.1.3 Our key recommendations in respect of each policy are set out below. In all cases, further application information should be published – for instance, there are very limited details within the policies in respect to response timeframes or procedures for claiming.
- i. Environmental mitigation
    - a. To date, no specific proposals have been provided. This will be required, and detailed engagement will be necessary in respect of the same, in order to assess the level of mitigation proposed, suitability and whether the proposals are sufficient.
  - ii. Off-site planting agreements
    - a. Clarity required on whether available for all property uses and whether there is a qualifying level of impact.
    - b. The burden should be taken off of the landowner in terms of maintenance and restriction of land use.
  - iii. Noise insulation
    - a. The offer should be extended to all property types that can evidence a detrimental impact due to the Scheme.
    - b. The distance of a property from the operational road or construction works should not be a limiting factor.
    - c. Information should be published clarifying what level and type of noise mitigation will be provided.
  - iv. Noise payments for movable homes
    - a. Eligibility should be based on noise impact and not limited by distance from the Scheme.

- b. The compensation level proposed is not a fair level and should be enhanced.
  - v. Reasonable additional expenses to move into temporary suitable alternative residential accommodation
    - a. Policy should not be limited to adjacent properties only.
    - b. Other comparable schemes have provided additional support in this regard, such as: assistance with identifying a suitable TSARA; support to local businesses; additional considerations such as related medical expenses; exterior home maintenance; and enhanced support for vulnerable persons and shift workers.
  - vi. Off-line discretionary purchase:
    - a. An Offer Zone should be created within the Scheme red-line with any hardship requirement removed. This will provide certainty for landowners within the impacted area and will help combat any market stagnation.
    - b. The offer should relate to all property types and both a Home Relocation Assistance Scheme and a Business Support and Relocation Scheme should be offered, in line with offerings on comparable infrastructure schemes.
- 3.1.4 Please see **Appendix J (1)** for our detailed consultation response.

## 3.2 Summary of Thurrock's Land Interests Impact

### Summary

- 3.2.1 Our review of the Council's land interests has identified 174 land parcels that are impacted by the LTC scheme. The Statement of Reasons and Map Books 1, 2 & 3 which inform the most recently provided draft DCO application dated June 2021, identify three types of parcel that will be affected by the Scheme. These are categorised as:
- i. Permanent
    - a. 61 impacted parcels.
    - b. The majority of land registered to the Council in this category is classified as amenity land and verges, with additional parcels incorporating playing fields and residential land.
  - ii. Temporary
    - a. 16 impacted parcels.
    - b. The majority of the parcels are required on a temporary basis for access and can be classified in the most part as verges of highways land.
  - iii. Rights
    - a. 97 impacted parcels.
    - b. The majority of the parcels can be classified as highways verge or amenity land but there are some parcels where rights are being sought in regard to (and adjacent to) public buildings and residential land.



- c. A large number of the Rights acquisitions have an associated temporary possession being sought in order to facilitate the relevant Rights works and/or acquisition.

### **Recommendation**

- 3.2.2 The Statement of Reasons includes some (limited) justification and explanation for the sought compulsory powers and land requirement. However, this document is light on detail including (*inter alia*) on design justification, mitigation proposed, predicted local impact, acquisition dates and exact land take and timeframe for temporary possessions. It is hoped that this further information can be provided in detailed engagement meetings between the parties.
- 3.2.3 We have tried to arrange these detailed engagement meetings with HE, but these have yet to commence, and it is vital that these commence at the earliest opportunity. Our responses are subject to change depending on the outcomes of those engagement meetings.
- 3.2.4 Please see **Appendix J (2)** for our detailed consultation response.

## 4 Recommendations and Next Steps

### 4.1 Recommendations

- 4.1.1 The Council strongly recommends that HE enter into detailed discussions about all comments made within this Summary Review and the supporting Appendices to ensure that meaningful engagement about all issues is undertaken prior to DCOv2 submission.
- 4.1.2 Furthermore, it is imperative that the Council understands HE's position on each issue/comment raised and has opportunities for discussions with HE on all matters, prior to any DCOv2 re-submission, which should then be followed by a written response from HE to the Council's comments. Notwithstanding this, all the issues raised in this Consultation Response will be included within the Issues Logs and therefore be part of the emerging SoCG.
- 4.1.3 It is understood that not all of the many issues/comments contained within this Consultation Response will be accepted or agreed by HE, even after further discussions. Also, probably even less may result in changes to the LTC scheme design, improvements to the deleterious effects on Thurrock residents and businesses, its consequential mitigation provisions, its legal commitments within control documents or indeed its in-scope legacy provision. However, the Council believes that there are many critical, valid and acceptable points that could be built into the scheme prior to re-submission that would greatly improve the scheme. Such changes, if accepted by HE, would offer the Planning Inspectorate (PINS) a greater chance of dealing with all such issues within the 6-months period of the Examination, otherwise it will be challenging, as so many issues will be outstanding and the SoCG would be substantively negative.
- 4.1.4 At present, the LTC project seems determined to make its DCOv2 re-submission in November 2021, some two months following completion of this Community Impact Consultation. The Council believes this to be both impractical, if a quality DCO submission is the driver, and is likely to lead to a further recommendation from the Council for the scheme's Adequacy of Consultation to be rejected by the PINS. The Council therefore recommends that DCOv2 re-submission is not made until at least Spring 2022 to allow these discussions to be undertaken in a proper and thorough way.

### 4.2 Next Steps

- 4.2.1 The Council's consultation response will be submitted after the public submission deadline of 8 September 2021, following discussions with HE concerning the Council's governance processes.
- 4.2.2 The full report will be uploaded to the Council's website following Council approval/acceptance of its contents and shared with other key stakeholders, including PINS, in the interests of openness and transparency.
- 4.2.3 The Council believes that most of the HE 'control' documents are not technically adequate, do not follow best practice and do not offer either sufficient detail or adequate commitments that can be relied upon by the Council and the public following any DCO grant. These inadequacies are detailed in the accompanying Appendices, and we strongly recommend significant amendments.
- 4.2.4 This Summary Review attempts to distil the Council's main issues/comments into a more cogent form. It therefore recommends that the above-mentioned discussions with HE focus on this Summary Review, whilst also accommodating the detail within the Appendices.

## **Appendix A    (1) Outline Traffic Management Plan for Construction (oTMPfC), (2) Framework Construction Travel Plan (FCTP) and (3) Wider Network Impacts Management and Monitoring Plan**

## **Appendix AA      Traffic Modelling Issues**

## **Appendix B      (1) Outline Site Waste Management Plan (oSWMP) and (2) Outline Materials Handling Plan (oMHP)**

## **Appendix C      (1) CoCP including the (2) REAC**



## **Appendix D     DCO Schedule 2 Requirements and Explanatory Memorandum**

## **Appendix E     Design Principles**

## **Appendix F      Outline Landscape and Ecology Management Plan (oLEMP)**

## **Appendix G    Ward Impact Summaries North of the River Parts 1 and 2**

## **Appendix H      (1) Construction Update and (2) Operations Update**

## **Appendix I      You Said We Did (YSWD)**



## **Appendix J      (1) Your Property and Compensation or Mitigation for the effects of our road proposals (2) Thurrock Council's Land Interests**

## **Appendix K      Utilities Response**



## Appendix A

Outline Traffic Management Plan for Construction

(electronic pg. 2)

Framework Construction Travel Plan

(electronic pg. 33)

Wider Network Impacts Management and Monitoring Plan

(electronic pg. 54)

## Appendix AA

Traffic Modelling Issues

(electronic pg. 67)

## Appendix B

Outline Site Waste Management Plan

(electronic pg. 82)

Outline Materials Handling Plan

(electronic pg. 95)



## Lower Thames Crossing

Review of Outline Traffic Management Plan for Construction

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with an updated version (0.2) Outline Traffic Management Plan for Construction (oTMPfc) as part of the Community Impacts Consultation process from 14 July to 08 September.
- 1.1.2 This document sets out the Council's comments on the updated oTMPfc and indicates if, in the Council's opinion, there are any suitable opportunities to improve the project proposals or infrastructure provision. This review is specific to the construction stages covered by the oTMPfc. A working draft version of the oTMPfc was provided to the Council for initial feedback and comment during May 2021. The Council provided its comments and has engaged with HE across a series of meetings.
- 1.1.3 Table 2.1 of this document sets out the Council's comments and indicates in the final column of the table where the comments from the earlier version remain unchanged; are updated or are new.
- 1.1.4 The document follows the same structure of other reviews carried out by the Council and references within the tables of this document align to the referencing within the oTMPfc. The document responds only to the sections relating to the north of the river.
- 1.1.5 The Council has engaged with HE on 19 April 2021 to start to discuss the Council's review of the oTMPfc. Feedback was provided at that meeting and at subsequent meetings on 26 April 2021 and 04 May 2021. During those meetings all the Council's comments were reviewed and discussed in detail to assist in the process of updating the oTMPfc. Following those discussions, a second version of the oTMPfc was issued by HE to the Council on 28 June 2021.

## 1.2 Key Themes

- 1.2.1 The key general points of concern are set out in detail in section 2 below. The Council still believes that the oTMPfc does not provide sufficient detail, certainty or commitment and a clear governance process to give comfort that the temporary traffic management measures and plans will be acceptably controlled and managed or that impacts on the operation of the Local Road Network (LRN) and local communities within Thurrock will be suitably mitigated. The drafted oTMPfc document does not provide currently a suitably robust framework from which subsequent detailed TMPs can be developed by the appointed Contractors.
- 1.2.2 The council's headline concerns (also summarised in 'summary and conclusions') are:
  - i. The lack of a clear set of traffic management principles, objectives and commitments set by the scheme promoter to clearly direct the contractor in the production and implementation of TMPs and associated schemes across all phases of work. The suite of TMPs must be co-ordinated, current and relevant.
  - ii. The proposed disapplication of the council's network management powers, including the current street works permitting systems and the consenting on temporary Traffic Regulation Orders, to which Thurrock Council is not able to agree. The changes would impact on the Council's ability to manage effectively the LRN including works being carried out as part of the delivery of the Project and also works carried out by other major projects and day to day operations on the LRN.

- iii. The need for a clear commitment in this document by the promoter and all contractors (and their sub-contractors and suppliers) to exemplary levels of best practice in safety, efficiency and environmental protection in relation to construction logistics management and fleet operation. There should be a requirement for contractors to operate to the Construction Logistics and Community Safety Standard (CLOCS) and Fleet Operator Recognition System (FORS) Silver Standard with progression to Gold.
  - iv. The lack of emphasise in the document on the importance of managing construction traffic and traffic management scheme interfaces with, and impacts on, pedestrians, cyclists and other vulnerable road users.
  - v. The need for further information on proposed monitoring, reporting and enforcement arrangements that will be put in place across all construction phases – particularly in relation the scope of monitoring proposed and KPIs that will be regularly reported. Effective enforcement mechanisms also need to be clearly set out in the document.
  - vi. The need for further definition of the management and governance procedures that will be required and put in place during the construction phases.
  - vii. The lack of information on the management and reporting processes of incidents and emergencies which affect the operation of the travel networks – which should include contingency planning and defined contingency routes and the reporting processes of the incidents.
  - viii. The lack of details on the commitments that will be required of the contractors prior to and during the construction works and in the decommissioning and hand-over phases.
  - ix. The need for recognition and inclusion within the strategic and local Transport Planning modelling of the significant movements of LGV construction related traffic as well as the HGVs.
  - x. The need for a promoter led requirements on the co-ordination of the contractors to provide detailed appraisal of the effects on the road network of the delivery stages of the Project, in particular the delivery of the A13 interchange and the impacts on the operations of the network.
  - xi. Further detail on the designated access routes that would be managed/ enforced and the consequences of non-compliance.
  - xii. Further information on the management and co-ordination of protections to the affected local road network and how that would be set out within and operating agreement.
- 1.2.3 Overall, it is also the Council's opinion that it should be the approving body for construction period management plans including the contractors' CTMPs. If it is determined that this is not to be the case then the governance of those TMPs and the process for agreeing them, prior to approval by the SoS, needs to be set out in the oTMPfc. This would give direction and clarity to the appointed contractors and the Council. HE refers to reporting to the SoS that consultation with local authorities has been undertaken, however, the evidence to the SoS must include a report as to what feedback was received and how it has been addressed. This is fundamental if the local authority is not to be the approving body. The local authority must have the right to respond to the report and a system of conflict resolution identified.

## 2 Review of Outline Traffic Management Plan for Construction (updated July 2021 version 2)

### 2.1 Comments

Table 2.1: The Council's Comments on the Outline Traffic Management Plan for Construction (oTMPfc)

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
<b>Chapter 1: Executive Summary</b>			
1.1.1	"traffic management and logistics"	a. The CoCP indicates that Construction Logistics Plans (CLPs) and Site Specific Travel Plans (SSTP) (for each compound site) will be prepared by the contractors. The Council has not had sight of the framework for the CLP and so reserves the right to comment on this document.	Updated
		b. A framework construction travel plan (FCTP) has been presented by HE as part of the non-statutory consultation process and is being reviewed by the Council and comments on that document will be provided separately. It is noted, however, that the CLP, FCTP and SSTP documents are not within the DCO as Certified/Control Documents. The frameworks for these documents should be tested through the DCO examination and be Certified/Control Documents.	
		c. The oTMPfc does not cross reference the CLPs, or SSTP and yet these documents must be aligned to maximise their effectiveness. The cross linking should be shown within the documents.	No change
		d. Each of these framework documents will require detailed documents to be prepared by the appointed Main Contractors for the various project contracts. The document must indicate how these will be phased, co-ordinated, monitored, managed and maintained. In all cases the Council will need to be engaged in the approval of those documents.	No change
1.1.2	Background	a. The oTMPfc should clearly include all works associated with the enabling, site establishment and decommissioning phases. There are references at points through the document to early works, such as temporary "supplies" i.e. statutory undertakers' connections etc, however the oTMPfc and the subsequent detailed TMPs need to recognise and capture fully the works associated with these phases and the linkages back to the CoCP and EMP. Those enabling and early works and decommissioning can be significant in terms of their impacts and may require significant procedures which require the commitments and protections that should be observed	Updated

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		<p>and secured through the finalised TMPs e.g. network management procedures; temporary traffic regulation orders, non-motorised user facilities management, bookings management, etc.</p> <p>b. The text refers to outline concepts and principles, this is not representative in the text, with no leading principles or objectives outlined. These leading principles for traffic management plans and schemes should be clearly defined for contractors to adopt, including road user safety, worker safety, minimising community impacts, design change to reduce construction time and TM impact, direct and suitable diversion routes for all traffic; clear and concise traffic signing; etc.</p>	Updated
<b>Chapter 2: Introduction</b>			
2.1	Purpose and Objectives	The oTMPfc and the subsequent finalised TMP need to align, cross link and complement the CoCP and EMPs. The commitments that will need to be made through the CoCP/EMP must co-ordinate and supplement the TMP. The CoCP and EMP will need to capture the proactive and management measures associated with initiatives around such matters as vehicle safety and standards, workforce training, working hours, etc. These would complement the processes that would be set out in the TMP and the linking must be recognised within the TMP (and vice versa).	No Change
2.1.2	"inform the Traffic Management Plan for Construction"	The oTMPfc needs to stipulate the mechanism for controlling the co-ordination of Contractors' TMPs. There will be a range of TMPs developed at differing phases and by different Contractors and not a single and static document. The alignment and co-ordination of the TMPs will need management and governance by an overseeing group which includes the Council and is empowered to govern the implementation of the TMPs. The powers of that governing group are especially important where the cumulative effect on the local road network (LRN) could be partly out of the control of the Local Highway Authority (LHA), if the proposals for such processes as Permitting are consented as set out within the draft DCO. For example, it is proposed that the LHA will only be a consultee to a TMP. If phased TMPs are developed by different contractors, there is no mechanism or control by which the Council would be able to co-ordinate between the tunnelling contract and the road delivery contract. It should be a function of the LTC Client team to ensure co-ordination across the works and the construction processes. Cumulative impacts across the contracts and contractors should be assessed and established by the Client team and reported to the LHA at the proposed Traffic Management Forum for the forum to review and determine corrective action where objectives and compliance is not met. The Council recognises the proposed appointment of a Traffic Manager (oTMPfc Table 2.2 refers); however, the Traffic Management Forum must be constituted to allow the parties to impose sanctions on the contractors as required as a consequence of the review process and not be left for the	Updated

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		<p>powers of sanction to be at the decision of the Traffic Manager, or through some form of protracted conflict resolution process involving the Secretary of State (SoS). The establishment of a Joint Operations Forum (JOF) indicated in the Code of Construction Practice (CoCP) is noted, however the LHA is not party to that forum. For example, the alignment of major phases of tunnelling works, which could generate high numbers of road movements, should not be aligned to major works at the A13 / A1089 remodelling. The outline Materials Handling Plan (oMHP) has been included within this consultation material and the Council is providing a separate response on that document. The Council is, however, raising substantive concerns about the lack of detail and robustness of the oMHP and that from that document there can be no understanding of the prediction of type and volume of movements associated with the movement of materials, plant and equipment for each contract and each phase. Those predictions must be provided and set the upper limits to which the contractors work. That detail must then be developed through the detailed MHPs and the CLPs that will be developed by the contractors prior to undertaking the works. The Council would wish to see proposals for network co-ordination which accompany those plans and which should consist of monthly update meetings.</p>	
2.1.2	"before commencing the relevant part of the Project"	<p>This is vague. The oTMPfc should make a commitment to the production of a TMP by the contractor in advance of all works associated with the scheme (including enabling, site establishment and decommissioning phases.). Enabling, site establishment and decommissioning works can be significant in terms of their impacts on the highway network. The undertaking within the oTMPfc must link to the stages of the works across the separate contracts. Due to the length of the works, it will be anticipated that the contractors will need to prepare a series of TMPs which are relevant to subsets of their contracted works. The framework must reflect this and ensure that the TMPs are kept current and relevant.</p>	New comment
2.1.2	"relevant highway authorities"	<p>The referencing to authorities through the document needs to be checked to ensure they are appropriate and consistent at each point. There are a range of references to relevant authorities; highway authorities; relevant highway authorities; authorities; local authorities; relevant Highway Authority; and Local Highway Authority. In each instance it must be clear whether the reference is to the Local Planning Authority, the Local Highway Authority or Local Traffic Authority.</p>	No change
2.1.2	"engagement with.... businesses"	<p>a. Who has HE engaged with? For example, does this include the Thurrock Business Board, the Port of Tilbury, Amazon and Thames Gateway port? This should be clearly stated.</p>	No change



Relevant Section in the oTMPfc	The Council's Comments	Comment Status
	<ul style="list-style-type: none"> <li>b. Table 2.1 now indicates that HE and its contractors must engage and consult with a number of business on the TMP which is welcomed.</li> <li>c. There should also be commitment to ongoing engagement with local businesses and developers during the construction period and how the finalised TMP will be co-ordinated with other major developments, such as Tilbury 3, London Resort, Thurrock Flexible Generation Plant and the emerging Freeport? Where this is set out in other plans and documents, wayfinding to those points should be added – such as the Engagement Management Plan.</li> <li>d. Feedback and responses from those organisations engaged should be set out as an Appendix to the oTMPfc to indicate the points made and resolved.</li> </ul>	<p>New</p> <p>Updated</p> <p>No change</p>
2.1.2 & 2.1.3	<p>"The TMP"</p> <ul style="list-style-type: none"> <li>a. The oTMPfc now rightly recognises at 2.3.1 that there will be a series of TMPs for different project stages or areas by a number of authors / contractors, however, 2.1.2 and 2.1.3 do not align with that paragraph as they are currently written.</li> <li>b. Since there are to be a series of concurrent TMPs covering different contracts and different phases, the oTMPfc must set the mechanisms for co-ordination and governance. This co-ordination and governance must be carried out in collaboration with the Council to ensure that the cumulative effects are managed and communicated, including co-ordination across other non-LTC contracts and works. See comments on proposed Traffic Management Forum.</li> </ul>	<p>Updated</p> <p>No change</p>
2.1.3	<p>"TMP must be approved by the Secretary of State,</p> <ul style="list-style-type: none"> <li>a. The document includes a commitment to consultation with the local planning and highway authorities on the TMP prior to its submission to the SoS at 2.3.3 but this should be worded to align with the DCO, currently "planning authority". The Council proposes that "... in consultation with the planning authority" or similar should be added. The Council has made representations to HE to express that the Council should be the approving authority of the documents rather than a consultee. If it is determined that the local authority will not be the approving body then the evidence to the SoS must include a report as to what feedback was received and how it has been addressed. This is fundamental if the local authority is not to be the approving body. The local authority must have the right to respond to the report and a system of conflict resolution identified.</li> <li>b. A mechanism needs to be set out in the oTMPfc by which the TMPs are kept current and relevant. (See comments on Traffic Management Forum later) The construction programme and processes will change during the life of the project and the initial TMPs will need to be refreshed to reflect those changes. Contractors will not propose updates to documents unless there is a contractual requirement to provide them. HE should consider a mechanism for reporting</li> </ul>	<p>Updated</p> <p>Updated</p>

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		<p>adjustments and updates to the Council. That could include fora and quarterly update reviews. Where large changes in impact are expected, an update to the TMPs, CLPs and / or CWTPs should be triggered. The oTMPfc framework should set those trigger criteria and provide an approach where the Council can approve changes.</p> <p>c. The oTMPfc must indicate how the TMPs will correlate with the CoCP and the subsequent EMP and CLP, which in turn will include the CWTPs.</p>	No change
2.1.4	The oTMPfc will also outline measure available to the Contractor..."	<p>a. Why "<b>will</b>" the oTMPfc outline measures? It should be a Certified/Control Document within the DCO and therefore should be fixed in nature and give the absolute framework for the TMPs, secured through Requirement 10 of the DCO. There will be no iterations of the oTMPfc following consent of the DCO and so the Council must be content that the framework is sufficiently refined to inform the contractors to the commitments they will undertake.</p> <p>b. The oTMPfc should make commitments to which the Contractors shall conform and not suggestions that might be "<b>available</b> to the Contractor".</p>	No change  No change
2.2.10 2.3.1 Plate 2.2	Project documents and control plan	<p>a. A list of related project documents has been added at 2.2.10 and a document control plan provided at Plate 2.2. This helps in showing how all the documents (CoCP, oTMPfc, FCTP) relate to each other and makes reference to the relevant DCO requirement to produce TMP.</p> <p>b. Plate 2.2 should also show that CLPs, TMPs, SSTPs will also need to be produced prior to construction and how those documents interrelate with the other documents.</p> <p>c. Plate 2.2 - Where a document is related to a specific DCO Requirement it should be noted under that document name e.g. TMP (DCO Requirement 10)</p> <p>d. The outline Traffic Management Plan for Construction must be a robust Certified/Control Document in the DCO. It forms the framework for the TMP secured by Requirement 10 of the DCO and as such provides the regulatory framework to which contractors must comply when preparing their TMPs against which the Client and stakeholders will govern the processes.</p> <p>e. There should be consistency in the DCO and associated document to the referencing of TMP and CTMP. Typically, these documents, including the oTMPfc, refer to TMP and not <u>CTMP</u>.</p>	New comment  New comment New comment Updated No change
2.3.1 to 2.3.4	TMP Consultation and Approval	The document now clearly commits the contractor to the preparation of TMP/TMPs for approval. It also includes a commitment to consultation with "the relevant authorities" (which should be defined) on the TMP/TMPs prior to submission to the SoS at 2.3.3. The Council has made representations to HE, however, to express that the Council should be the approving authority of the document rather than a consultee. The Council has no certainty that it will be listened to, or	New

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		commitments actioned, and sanctions taken if it is not the approving body. HE refers to reporting to the SoS that consultation with Local Authorities has been undertaken, however, the evidence to the SoS must include a report as to what feedback was received and how it has been addressed. This is fundamental if the local authority is not to be the approving body. The local authority must have the right to respond to the report and a system of conflict resolution identified.	
Plate 2.3		<ul style="list-style-type: none"> <li>a. This diagram is very generic and it is unclear if this relates to the operational scheme design or to temporary traffic management scheme design</li> <li>b. It is unclear how this process has fed into the development of oTMPfc or the assessment of construction impacts included in the Transport Assessment. As a flow diagram there is no output of the final scheme.</li> <li>c. Following consent of the DCO there will be no further Traffic Assessments, as the impacts should have been tested and appraised through the Examination and the design would be fixed with the exception of non-substantial changes. The diagram therefore needs to indicate that a fixed design has been achieved by the time of consent.</li> </ul>	New
2.4 (formerly 2.3.1)	Challenges and Consideration	In the preliminary version of the oTMPfc provided to the Council, there was an acknowledgement about a considerable amount of Construction traffic and (point 2.3.1(f) <i>'initial routes are not ideal and would not be able to cope with significant traffic volumes.'</i> By HE's own admission the oTMPfc supports the needs for the routes that HE was proposing to be strengthened and future proofed before the issues develop. That point has been removed from the latest document and the Council would like to understand how it has been resolved?	Updated
2.4.7	"Overarching considerations which would be considered"	The oTMPfc sets the base from which the TMPs would be developed. It is insufficiently robust not to set measures that the contractors must achieve and incorporate. The points raised within Table 2.3 should be the minimum standard that the contractors must adopt and employ and not a series of initiatives that can be readily dismissed at the whim of the contractors.	New
2.4.9	Monitoring	<ul style="list-style-type: none"> <li>a. A means to monitor compliance with vehicle routeing has been proposed which is welcomed. This will inform a monthly "monitoring report" reported at a monthly Traffic Management Forum (TMF).</li> <li>b. The full scope and key indicators to be reported in the monthly monitoring report should be outlined in the oTMPfc.</li> </ul>	<p>Updated</p> <p>New</p>

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		<ul style="list-style-type: none"> <li>c. There should be a commitment to effective CLOCS/FORS implementation monitoring mechanisms to allow CLOCS/FORS compliance performance data to be produced and included in the monitoring reports (see comments on CLOCS/FORS more generally under safety later).</li> <li>d. This should include collecting review information on all collisions resulting in harm (and near miss incidents) that occur on journeys associated with the project.</li> <li>e. Effective enforcement mechanisms need to be set out in the document e.g. HE should set out what the consequences would be to contractors, sub-contractors and their hauliers for non-compliance – e.g. three strikes and out.</li> </ul>	<p>No change</p> <p>New</p> <p>New</p>
Table 2.2 - Thurrock Council	Issue column	<ul style="list-style-type: none"> <li>a. The reported issues in this Table are generic and neglect many of the specific issues raised by Thurrock Council, such as the impact of construction traffic on Chadwell St Mary, the impact of construction traffic on the safe and efficient operation of the LRN for non-motorised users, motor traffic and public transport; concerns about the diminution of control over the management of the local network during construction; the management and repair of damage to the LRN due to the construction operations; and the residual impacts the disruption during the construction period will have on active travel and how that will be addressed by HE.</li> <li>b. HE should take its lead from the proactive approach adopted by the Dutch in their Minder Hinder approach (including the 7 Pillars that were adopted).</li> <li>c. Key themes identified relate to Impacts on Access Routes and Local Roads - The document must specify routes that are to be used for site establishment, early works and demobilisation as these are noted not to be limited to the routes indicated to be access to compounds.</li> <li>d. A means to monitor compliance with vehicle routeing should be proposed, which could include check data on routes such as GPS or ANPR systems. HE should set out what the consequences would be to contractors, sub-contractors and their hauliers for non-compliance – e.g. three strikes and out.</li> </ul>	<p>No change</p> <p>No change</p>
Table 2.3 – Van, car drivers and motorcyclists (pg7)	How would the TMP take these into account?	<ul style="list-style-type: none"> <li>a. The oTMPfc should recognise the importance of incident management on driver safety and network management. The incident management processes should include contingency routeing for road users and for construction traffic. The use of these contingency routes must be agreed and communicated to the Council to align with their co-ordination processes. Those routes could then be used for the duration of the incident in agreement with the Council, with the period for returning to the prescribed routes set out between the Council and HE/Contractor.</li> </ul>	Updated

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		<ul style="list-style-type: none"> <li>b. The oTMPfc must be clear that the use of variable message signs and other temporary traffic management measures to be placed on the LRN would be the subject of the standard licencing and permitting agreements and processes with the Local Highway Authority.</li> <li>c. The use of electronic variable message signs should be used to complement temporary fixed information signs and notification of works. Signs outside the DCO boundary in connection with a Traffic Management Scheme would be part of that scheme and would need to have additional approvals from the Council.</li> </ul>	
Table 2.3 – HGVs (pg. 7)	How would the TMP take these into account?	The management of Abnormal Indivisible Loads through the road works and on diversion routes, whether associated with the construction works or in background traffic, must be reflected fully within the TMPs through the robust framework of the oTMPfc.	No change
Table 2.3 – walkers, cyclists and horse riders (pg. 8)	How would the TMP take these into account?	What mechanism is to be used to “ <i>seek views of highway authorities when designing diversion routes</i> ” and what timescales will be set to ensure acceptable engagement and notice? The oTMPfc must set this process and mechanism out, to which contractors must adhere.	No change
Table 2.3 – Public Transport Users and Operators (pg. 8)	How would the TMP take these into account?	<ul style="list-style-type: none"> <li>a. What mechanism is to be used to “<i>seek views of highway authorities when designing diversion routes...</i>” and what timescales will be set to ensure acceptable engagement and notice?</li> <li>b. Why are rail companies only identified for engagement? Engagement must include local and strategic bus operators, coach companies and school transport providers.</li> <li>c. The oTMPfc must set this process and mechanism out, to which contractors must adhere.</li> </ul>	No change
Table 2.3 – Logistics centres (pg. 9)	How would the TMP take these into account?	<ul style="list-style-type: none"> <li>a. The Local Highway Authority must be involved in the determination of “<i>Diversion routes that can accommodate stacking and/or tacho breaks</i>”. Diversion routes that have been identified in the oTMPfc are not suitable for lorry traffic e.g. in the vicinity of Orsett and Baker Street. Thurrock Council would not support on network HGV stacking or “<i>tacho breaks</i>” on the LRN – whether specified or not.</li> <li>b. This issue should be expanded and concluded with the Local Highway Authority prior to the oTMPfc being Certified/Control within the DCO. HE must set out in the oTMPfc the mechanisms that it and its contractors will put in place to enforce against on-network stacking or breaks.</li> </ul>	No change

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
Table 2.3 – Relevant authorities and local stakeholders (pg. 10)	How would the TMP take these into account?	a. Thurrock Council objects to the diminution of control over the permitting and scheduling of temporary works on the LRN, which is proposed through the DCO and indicated within the oTMPfc. The oTMPfc must set out the mechanism and protocols to “Engage with the local authorities on Traffic Management” whilst allowing the Local Highway Authority to retain what it considers are acceptable Network Management controls. That mechanism must be set out for the contractors to conform to and must be consistent throughout the DCO documents and consents. The Local Highway Authority must be able to monitor and manage its network; have sight, overview and co-ordination of operations on its network – including changes to programmes and over-runs.	No change
		b. This table notes preventing damage on roads but does not address how this will be achieved or how damage would be rectified. A regime of regular inspections and intervention needs to be recognised and set out in the oTMPfc to be reported at via monthly monitoring reports and at the Traffic Management Forum.	Updated
		c. The Council has raised through engagement that the resources required to manage and operate the permitting for the project must be funded by HE/the Promoter and that this must be captured within the DCO and through a separate Agreement, possibly a Section 106 Agreement. This was raised and discussed at the meeting of 19 April 2021.	Updated
Table 2.3 – Relevant authorities and local stakeholders (pg. 10)	What are their requirements?	The table does not recognise that the Council continues to have a network management duty for the LRN. Under the Highways Act and the Network Management Act the Council will still be responsible for routes through the construction works areas and along access corridors. The Council needs to ensure it fulfils its statutory duty and therefore it must be set out in the oTMPfc that access for gritting, making safe damage, gully cleansing etc. is maintained at all times. The division between roles and responsibilities between the Council, HE and its contractors must be set out.	No change
Table 2.3 – Local schools (pg. 11)	How would the TMP take these into account?	a. How will the contract ensure and enforce that “ <i>HGV movements will not be allowed to pass school entrances during drop off/pick up</i> ” times? This is an admiral proposal that needs further definition within the oTMPfc. b. The Council transports a significant number of children and some with SEND. Changes to routes or delays have an impact on the children and potentially impacts the operator financially. It should be set out in the oTMPfc which schools would be affected and how these impacts will be monitored and mitigated.	No change

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
Table 2.3	Who is affected by the project	Major Development Sites in the area will be significantly impacted and should be identified and covered in this table. Their ongoing engagement and involvement in the Traffic Management Forum will be required to ensure effective local network management and minimise impacts.	New
Table 2.3	How would the TMP take these into account?	<ul style="list-style-type: none"> <li>a. Condovers Scout Activity centre is located on a secondary access route to Compound 5, how will this be impacted, particularly at weekends?</li> <li>b. It should be set out in the oTMPfc how the conflict with the use of PRowS and local road network for activities is managed and mitigated.</li> </ul>	No change
<b>Chapter 3: Overview</b>			
Plate 3.1	Observations, comments....	With whom, how and when will " <i>Observations, comments and lessons learnt</i> " be shared? What will be the purpose of the information sharing? How will HE and the Contractors collaborate as a consequence? This should be reflected through the engagement mechanisms and protocols which need to be set out. This in turn will impact on the Council's resource requirements which will need to be adjusted accordingly.	No change
3.1.3	"request roadspace.." and Timescales	<ul style="list-style-type: none"> <li>a. The OTMPfc still proposes to disapply provisions of the New Road and Street Works Act 1991 (NRSWA) (including permitting schemes) and outlines a mechanism for managing road space booking and permitting via the existing road book systems operated by respective local highway authorities (with engagement at a regular Traffic Management Forum). Thurrock Council objects to the diminution of its control over the permitting and scheduling of temporary works on the LRN, which is proposed through the DCO and indicated within the oTMPfc. Thurrock Council as Local Highway Authority and Local Traffic Authority for the LRN within its Borough must retain robust management of its network.</li> <li>b. It is not always the case that local authority powers related to the permitting of street works are disappplied. In relation to the Thames Tideway scheme (also identified as an NSIP) the relevant local highway and traffic authorities retained their powers for controlling street works and road works related to the scheme (via the London Permitting Scheme - LoPS). This was agreed following representations made by Transport for London at the Examination in Public.</li> </ul>	<p>Updated</p> <p>New</p>
3.1.4 to 3.1.6	"changes to the permitting application"	<ul style="list-style-type: none"> <li>a. Thurrock Council as Local Highway Authority and Local Traffic Authority for the LRN within its Borough must retain robust management of its network. Subject to the detail of a consented DCO, Thurrock Council would not unreasonably obstruct the delivery of the agreed project carried out in line with agreed procedures and consented document, however, the delivery of the</li> </ul>	No change



Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		<p>project must be co-ordinated with the broader management of the LRN, which would be the jurisdiction of Thurrock Council. The changes to the road space permitting scheme are, therefore, not acceptable to Thurrock Council.</p> <p>b. It should be clear in the document that the mechanism for permitting must reflect that requirement for co-ordination of both programmed and emergency works proposed through the Project and those proposed by other parties not associated with the Project i.e. the fundamental process of the Network Management duties defined within the NRSWA 1991 and through the associated current permitting scheme.</p> <p>c. This matter is further confounded through Plate 3.3 which appears to infer the Local Highway Authority would issue permits – albeit that table is unclear as to the type of permit that would be issued and to whom.</p>	<p>Updated</p> <p>New</p>
3.1.4 to 3.1.6	"changes to the permitting application"	<p>a. The suggestion to 'disapply' the permit scheme would take away any control the Council would have over the co-ordination of much of the borough and the Council are extremely concerned about the diversion routes that would be applied, particularly the ones that do not appear in the oTMPfc document.</p> <p>b. The key to this project is communication and early engagement and the permit scheme is pivotal in it being a success. Without a permitting system in place, HE has the potential to work wherever and whenever, with little regard to existing planned works.</p> <p>c. HE is seeing the permits as a hindrance to the project where in actual fact it can be an advantage to it if it communicates correctly. If it engages early enough, Thurrock Council can ensure that the road space is booked well in advance of works and the Council will be able to fit the utility or other works around the HE works. Without HE being a part of the permit scheme it would work the opposite way around and therefore the systems would fail.</p> <p>d. The management and visibility of the permitting for network works would similarly impact on the management of Abnormal Indivisible Load routing where works are not recorded on the national Street Manager database and are not 'visible' to the Council.</p> <p>e. This approach would work as can be demonstrated with the success of the A13 project in relation to the way both Kier and the network management team have engaged, discussed any issues together and resolved them resulting in no time lost for the project.</p> <p>f. The Cadent works on London Road were also a success, where again early engagement has taken place and issues ironed out long before works commenced.</p>	No change - All

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		<p>g. Both of these projects have been successful because the Council has the permit scheme in place. Permit conditions are pivotal in being able to manage the network.</p> <p>h. The Council's Permit Team will show parity across all service users, however, additional resources could be required to maintain a robust service across all users, including the project. The additional resources funding support requirements are set out with the Council's Hatch Report measure CLS1.</p>	
3.1.6	Traffic Management Forum	The oTMPfc must set out the constitution, timeframes and protocols for the mechanisms for engagement on the TMPs, throughout the life of the Project. The framework must include the lines of communication between those represented on the fora, the Promoter and its contractors.	No change
3.2.2	"(DLOA) or Local Operating Agreement"	The heads of terms of a DLOA / Local Operating Agreement should not be left to be determined by the contractor after the DCO consent. The draft heads of terms for such an agreement should be set through the DCO for the contractors to work to. This will provide Thurrock Council a single agreement that has been tested at Examination rather than seeking to reach agreement with multiple contractors post consent as part of <b>consultation</b> on the detailed TMPs.	Updated
3.1	General Principles of Traffic Management	<p>a. The section on the "Nature and General Principles of Traffic Management" has been removed from the latest version of the document.</p> <p>b. This is a concern as it seems a fundamental element of the document and should be included at the start of this section. It should outline:</p> <ul style="list-style-type: none"> <li>i. Nature of traffic management works</li> <li>ii. Nature of all LRN interfaces</li> <li>iii. Key objectives / principles that are proposed to underpin all TMPs e.g., road safety, minimising disruption for all road users</li> <li>iv. Clear list of commitments by the scheme promoter (and those expected of all contractors)</li> <li>v. a commitment to maximising beneficial reuse, maximising use of marine/heavy rail (including a targets e.g. % of exported material by rail/marine)</li> </ul> <p>c. This outline document should provide a clear outline of the document content (and possibly a checklist) that contractors should adhere to when producing their TMP. This should reflect the key principles and commitments set out in this document.</p>	New
3.4.2	"Abnormal traffic movements"	a. Whilst it is noted at 3.4.2 that "Abnormal traffic movements may occur outside of standard working hours", the document is not absolutely clear whether this specifically refers to Abnormal	Updated

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		<p>Indivisible Loads (AILs). It is assumed that the document is not referring to abnormally high numbers of movements by standard sized construction vehicles. In regard to AIL movements, there is only limited information on their likely nature, scale and the process for the identification of proposed routes and assessment of the suitability. It needs to be made clear in the oTMPfc that predictions and definitions of AIL movements will need to form part of all contractor Traffic Management Plans.</p> <p>b. Existing regulation and processes are already set out for these movements and the document should clearly indicate that those processes will be strictly adhered to. Subject to the contractors designs and operations, the construction period will require significant AIL movements which will require careful management and co-ordination. For example, the strategy for the delivery or removal of the Tunnel Boring Machines; associated equipment, batching plants and shutter systems is not set out at this stage and could include many AILs across extended time periods. This will require significant planning well in excess of the standard notice periods and could require temporary traffic management measures substantially in excess of those currently outlined. The management of these processes needs to be set out in the oTMPfc as a framework for the contractors. That process must recognise the need for co-ordination not only with the Local Highway Authority and Police force but also the Port of Tilbury and other affected major stakeholders and place an onus on the contractor to ensure coordination and acceptable routeing submitted by the haulage contractor.</p> <p>c. The out of working hours AIL movement should exclude loading and unloading operations and setting up equipment such as cranes etc. Where it is safe to do so.</p> <p>d. There are a number of weak structures within the Borough which will need assessments and potential strengthening works to allow for some movements. These structures are to be identified early at the expense of the project.</p>	<p>No change</p> <p>No change</p> <p>No change</p>
3.3	Communication and Community Engagement	<p>a. Excellent project communication and engagement will be critical to minimising impacts and disruption during the construction period</p> <p>b. Further information has been provided on how a Community Engagement Strategy (CES) will be produced by HE and Community Engagement Plan (CEP) by all contractors.</p> <p>c. The section on proposed methods of Communication (in-advance of works and during their construction) has been removed. This should be provided as part of the oTMPfc.</p> <p>d. There needs to be a commitment to ongoing engagement with the Council's own Communications officers to assist in the preparation and delivery of these plans.</p>	<p>New</p> <p>New</p>

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		<p>e. Given that this significant communications piece will need to be delivered by HE and across a range of contractors, further information is required on how it will be co-ordinated and managed and how it is proposed that the Council's Communication officers will be engaged.</p> <p>f. HE must set out how communications on the traffic management proposals and timing will feed into that process e.g. will there be a regular Project Communications Management Forum with all directly impacted local authorities invited? How will the Traffic Management Forum deal with communications issues and requirements?</p>	New
3.3	Community Liaison Groups	<p>Further information should be provided in relation to these proposed groups:</p> <p>a. How many are proposed? What area would they cover? What will be the proposed membership?</p> <p>b. Who will be responsible for the management of these groups?</p> <p>c. How do the CLGs align with or relate to the proposed Traffic Management Forum and how would these be co-ordinated and constituted?</p>	New
3.3.8	Distribute information sheets	To whom will these be distributed: the CLGs, residents, stakeholders?	New
3.3.9	"customer contact centre"	<p>a. What will be the channel for feedback from the Local Highway Authority and the Local Planning Authority? Will this be via the Traffic Management Forum?</p> <p>b. The Council will receive many community complaints and the mechanism for reporting and resolving those should be set out in the oTMPfc.</p>	Updated
3.3.10	Traffic Manager	<p>a. The oTMPfc now includes a commitment to the appointment of a Traffic Manager by HE which is welcomed.</p> <p>b. Given the scale of the works proposed under the main works contracts and their associated traffic management activities, it should be clearly indicated that each main works contractor should also appoint a traffic or logistics manager with responsibility for their traffic management.</p> <p>c. A key responsibility of HE's Traffic Manager should be to ensure the production of the TMP/s by all contractors and that local authorities are engaged in and consulted on all TMPs.</p> <p>d. It should be clear that the Traffic Manager will have a critical function of ensuring co-ordination of the various TMPs that will be produced by contractors.</p> <p>e. Point (f) "receive data....". HE's Traffic Manager should also be responsible for collating or preparing and submit a monthly monitoring report to the Traffic Management Forum.</p>	All New

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		<p>f. The scope of the monthly Traffic Management Monitoring Report (including the nature and coverage of impact monitoring proposed and the key performance indicators to be reported on) should be provided within the oTMPfc. This needs to be agreed with the Council as part of the oTMPfc.</p> <p>g. It should be clear when the Traffic Manager will be appointed. This should be ahead of all associated enabling and site establishment work. That role must then be maintained throughout the life of the construction period for the Project. The Traffic Manager must be a suitably senior role with the person appointed able to co-ordinate and lead the contractors and inform the development and management of the TMPs. That role must be mandated to drive improvements in the construction traffic management associated with the Project.</p>	
3.3.14 and 3.3.15  Plate 3.2	Traffic Management Forum	<p>a. It should be made clearer in this section that a key role of the TMF will be to initially review and approve the TMPs and their constituent schemes proposed by each of the contractors. The TMF will also govern, monitor, review and if necessary, require updates to the TMPs / scheme proposals.</p> <p>b. A mechanism needs to be set out in this section as to how it is proposed that contractor TMPs are kept current and relevant. The construction programme and processes will change during the life of the project and the initial TMPs will need to be refreshed to reflect those changes. Contractors will not propose updates to documents unless there is a contractual requirement to provide them. HE should propose a mechanism for reporting adjustments and updates to the Council at the TMF. That could include a commitment to a quarterly TMP reviews and update if required.</p> <p>c. Where large changes in impact are expected, an update to the TMPs, CLPs and / or SSTPs should be triggered. The oTMPfc framework should set those trigger criteria and provide an approach where the Council can approve changes.</p> <p>d. It needs to be clear that any "updated" TMPs or measures will be presented back at the TMF.</p> <p>e. Plate 3.2 suggest that the Community Liaison Group will be represented on the TMF – or would they rather receive communications coming out of the TMF? HE must clarify this position.</p>	All New
3.3.16 Plate 3.3	Possible traffic management planning/escalation process	<p>a. If this is the escalation process proposed, then it should not say "possible".</p> <p>b. The diagram does not indicate the path if the Local Highway Authorities does not agree the TMP. There is no circulation to achieve Local Highway Authority approval, the route always proceeds to the SoS, which also has no route for rejection. The diagram therefore assumes that the TMPs will automatically be approved.</p>	All New

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		c. In the Post DCO row it should be clearer that TMPs will be presented at the TMF. The council will review and comment on the TMP once it has been produced rather than just input to it production.	
<b>Chapter 4: Proposed Traffic Management measures</b>			
4	Proposed Measures	This section needs to start by providing a clearly defined list of the traffic management plan measures proposed within this plan and then describe them in more detail. e.g. Safety Measures x, y and z, a set of agreed and defined construction site access routes, a range of highway traffic management schemes across the network as set out in Table x (for schemes > 3 months) and Appendices A and B.	New
4.1	"Safety measures"	<p>a. The Council believes the promoter should be championing and demonstrating best practice in safety, efficiency and environmental protection in relation to construction logistics management and fleet operation.</p> <p>b. There should be specific commitments (or appropriate references given if the commitments are made in other supporting documents) by the HE to require the contractors (and their sub-contractors and suppliers) to comply with the Construction Logistics and Community Safety Standard (CLOCS) and Fleet Operator Recognition System (FORS) Silver Standard. which include driver training programmes such as VanSmart.</p> <p>c. A commitment must also be included for the contractors traffic management work force to meet high levels of competence e.g. appropriate CSCS accreditations. These commitments cannot be left to the contractors to agree post consent as there will be no imperative for them to achieve high standards. HE should be championing and driving standards up within the construction industry, as has been demonstrated by other Major Infrastructure promoters. There should be a clear commitment to these within the oTMPfc and CoCP. There have been commitments to these by other scheme promoters e.g. Thames Tideway Tunnel and the council believes this commitment is vital to ensuring construction traffic activity is as safety as possible for all road users.</p> <p>d. Wheel cleansing and street sweeping regimes should also be set out to for access corridors to ensure debris is not deposited on the Highway. These needs further discussion because current wheel washing requirements definitions are not suitable. The Council is aware of the poor street cleansing on the A13 widening and on Buckingham Hill Road. This increases collision risk.</p>	<p>Updated</p> <p>No change</p>

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		e. Prior to the start of the use of any diversion routes the route will be checked and all conflicting/misleading signs are covered /removed or co-ordinated with other existing diversions.	No change
4.1.3	"Consider alternative options, minimal TM measures, safety and space assessment"	<p>This paragraph is vague and unclear. What are minimal traffic management measures? It should be made clearer e.g. that in developing their traffic management plans and schemes contractors will:</p> <ul style="list-style-type: none"> <li>a. Consider and assess a range of alternative TM options</li> <li>b. Undertake a safety assessment / audit</li> <li>c. Consider impacts on all road users especially vulnerable road users and report how those impacts have been addressed.</li> </ul>	New
4.1.4	In the event a road has to be closed	There should be commitment that any road closures required will be identified in TMPs along with proposed diversion routes, an impact assessment on all road users and proposed mitigation measures including diversion routes.	New
4.1.4	LRN	What provision will be made to repair damage to the LRN where that route is used as a diversion route as a result of the works.	No change
4.3	Access routes	<ul style="list-style-type: none"> <li>a. The entire access corridors on the LRN within Thurrock, from the SRN, must be defined in the oTMPfc and not just the final approaches to the compounds and worksites. The mechanisms for enforcing the use of those routes must be set out.</li> <li>b. The gate line management processes could impact on the operation of the adjoining LRN. The methods of safe and efficient management of these impacts must be set out in the oTMPfc.</li> </ul>	No change
4.2.7 (e)	"Emergency access"	It should be stated that the term " <i>emergency</i> " does not include the use of those access points as an alternative construction access for construction traffic during network incidents. The oTMPfc should stipulate that emergency accesses would be used for emergency response vehicles only.	No change
4.3.5(g)	Compound areas	a. Whilst the updated document notes that 'most' compounds would make provision for 'holding' construction traffic off the highway it is still somewhat unclear as to whether any off-site holding facilities will be required? If holding areas are required then these should be indicated, or the prospect identified, with suitable control mechanisms as necessary. Where these are not identified the Local Highway Authority must have the right to veto proposals subsequent put forward by the contractors but are found not to be suitable.	Updated



Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		b. In addition to off-site Vehicle Holding Areas, if materials storage areas are proposed that are outside of the identified site compounds, these must be identified within the oTMPfc and indicated within the DCO and managed through the commitments within the CoCP and other Certified/Control Documents. Thurrock Council must have sufficient sight of these proposed compounds; information on their proposed use and will comment on their suitability prior to concluding its position on the DCO.	No change
All Plates	Emergency Turning Point	It is not possible to identify these / impossible to distinguish between red and orange lines.	
Plates 4.2 and 4.3	Fort Road access corridor	a. The access corridor to the main compound is shown along the old alignment of Fort Road and using the tight alignment of the route around the sub-station. The Development Boundary should be adjusted to show the correct route alignment. The impact of construction traffic on the use of the Fort Road corridor for workforce access (project workers and non-project related workforce) must be considered and mitigated. The Flexible Generation DCO representations from NR have highlighted concern with safety on the approach to the Low Street level crossing. This may be another issue with the Fort Road route for LTC.	No change
		b. HE is acknowledging the development of the Tilbury Link Road (TLR), through the RIS process, and so the haul routes within the CA5/5a compounds should align where possible to the future TLR where that will assist with future delivery of the TLR.	No change
Plates 4.2 and 4.3	West Tilbury access corridor	It is noted that Gun Hill and Rectory Road through West Tilbury is no longer recognised as an access corridor to CA5A. The withdrawal of this corridor is favourable to the Council, however, the withdrawal must be reflected through other DCO documents, including the Works Plans.	No change
Plate 4.	A1013 Stanford Road to Buckingham Hill Road	What measures will be in place to ensure construction traffic does not use Stanford Road from the Orsett Cock interchange to access Buckingham Hill Road?	No change
Plate 4.1-4.10	Local roads	The Council has concerns that sections of the LRN identified in the Plates in the oTMPfc are not suitable for construction traffic or large numbers of workforce traffic – including Station Road travelling from East Tilbury. The Council is providing comments on the initial draft of the Materials Handling Plan which may impact on the opinion of the suitability of local roads to	No change

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		handle the intended quantum of traffic on those routes or the effects of possible diversions during incidents.	
4.3 Plates 4.6, 4.7 & 4.8	Proposed Utility Access Routes	The indicated Utility corridors can have significant impacts on the operation of those routes for current communities, including Dock Road, Chadwell Hill/Brentwood Road, West Tilbury and Muckingford Road. HE and subsequently its contractors must provide details and assurances that the works will be managed to minimise effects on the communities that use those corridors.	
Tables 4.2 and 4.3	Table Headings	The document now contains multiple lists of TM measures. Table 4.2 and 4.3 Table headings should make clear that these tables only cover measures to be in place longer than 3 months.	New
Table 4.2	"A2, A1089, A1013..." Multiple Night closures	<ul style="list-style-type: none"> <li>a. Night closures that affect the A1089 must be programmed, communicated and co-ordinated long in advance to allow the commercial operators, including the Port of Tilbury and Amazon, to manage their operations. This commitment must be set out in the oTMPfc.</li> <li>b. We don't allow closures of the A1089 as no alternative route. We are pressuring for contraflows to be installed for planned works.</li> </ul>	No change
Table 4.2	Orsett Cock Roundabout	These works were previously identified within the works tables. Road works associated with the creation of the interchange between the LTC and A13 and Orsett Cock junction will create significant challenges to the management of the network. Their planning should be identified for significant advance co-ordination.	
Table 4.4	LRN HGV restrictions	<ul style="list-style-type: none"> <li>a. It is noted that HE proposes a system of construction traffic management to defined access routes using ANPR, however, it remains to be seen how that system will be implemented and managed, bearing in mind the many routes that would need to be monitored and the challenges over GDPR compliance around data management. A different basis may need to be used such as a GPS based approach with reporting of non-compliance.</li> <li>b. Reflecting this point, HE must demonstrate how it and its contractors will enforce the defined HGV restrictions set out in Table 4.4 and that those restrictions will apply equally to vans and other construction traffic associated with the Project. The definition of HGV and LGV should set out the Gross Vehicle Weight (GVW) limits for each classification e.g. HGV is &gt;7.5 tonnes GVW, LGV is &lt; 7.49 tonnes GVW.</li> <li>c. The council is concerned that there will be a large number of LGVs/vans associated with the delivery of the Project and these must be the subject of the same level of scrutiny and restriction as HGVs associated with the works.</li> </ul>	

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		d. The Table does not reflect other routes such as routes through Chadwell St Mary, East Tilbury and Linford, Grays and South Ockenden.	
4.5.3	Construction Transport Planning modelling	The Council will respond on the construction phase models when they are provided by HE. That analysis must reflect the effect of LGVs/vans as well as the movement of HGVs associated with the construction period. Further to the pre-consent strategic modelling, using the LTAM Saturn model, the oTMPfc must set out that post-consent CTMPs, to be prepared by the contractors, will include detailed phase plans which review the effects of the incremental delivery of the scheme, not least any consented interchange with Orsett Cock and A1089. The detailed models must use appropriate Transport Planning modelling software and reflect the stages of the construction. They must demonstrate how they affect the operations on the local roads and how those effects are mitigated. The strategic level analysis of the construction impacts using the LTAM Saturn model will give an indication of the strategic effects but will not inform the detailed management and mitigation of effects during the delivery of the scheme. HE and its contractors must engage with the Council when preparing and analysing the effects of the work stages. This is essential to allow the Council to carry out its Network Management duties. This commitment must be covered by a Requirement within the DCO, including defined engagement periods and communication strategies.	New
4.6	Diversion Routes	<p>a. There is no indication of whether any of these diversions will impact on local bus services. Bus operators should be engaged in discussion regarding diversion routes and their impacts.</p> <p>b. It is unclear if these will be complete road closures for all road users (including pedestrians and cyclists). Whist closures to vehicles may be required opportunities to maintain safe through access for pedestrians and cyclists must be considered.</p>	All New
4.8	Public Rights of Way / Vulnerable Road Users	<p>a. There must be a commitment to fully sign all PROW diversion routes and that appropriate public communication regarding planned closures and diversions takes place, including via the Community Liaison Groups.</p> <p>b. More broadly the document is silent on the methods of management of interfaces between construction traffic corridors and vulnerable users along access corridors. Also interfaces with vulnerable road users at traffic management worksites and site compound accesses. The interface with vulnerable users is much broader than at PROWs.</p>	All updated

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		<ul style="list-style-type: none"> <li>c. The importance of safely managing interfaces with vulnerable road users needs to be identified as a critical priority and emphasised when setting the general traffic management principles for contractors and where appropriate re-emphasised throughout the document.</li> <li>d. Contractors should be sign posted to guidance / best practice on planning, designing and operating temporary traffic management associated with construction activities on the highway that will help contractors ensure the convenience and safety of cyclists and pedestrians are fully considered alongside the needs of all other road users, as well as those undertaking the works</li> <li>e. The document needs to clearly define what methods of safety management and initiatives would be expected of contractors within their TMPs in relation to managing all interfaces with vulnerable road users. This is required to demonstrate how the risk of collisions with vulnerable road user will be minimised, fear and intimidation will be reduced, and severance impacts mitigated.</li> </ul>	
4.11	Incident Management	This section must reflect the requirement for response to incidents both for the Project to notify the Local Highway Authority but also for the Local Highway Authority to notify the Project of incidents that could affect construction operations – this should include the ability to cease access to the works or to manage access during sensitive periods such as during major concrete pours which could require the protection of access to the works.	No change
4.13	Implications of traffic management measures - maintenance	<ul style="list-style-type: none"> <li>a. This section has been removed from the latest version of the document and should be re-instated. It is critical that the maintenance roles and responsibilities are defined.</li> <li>b. This section must be clearly set out the different jurisdictions between the contractors e.g. those undertaking the tunnelling contracts and those involved in the roads' contracts. Each contractor will have different and co-ordinated roles and responsibilities. This governance of those Contractors by the Promoter; the division of roles and responsibilities; the shared responsibilities and the system of co-ordination must be set out in the oTMPfc.</li> <li>c. The systems must include a mechanism to apportion responsibility for the management of traffic management measure and damage to the LRN and how that damage will be resolved.</li> <li>d. The monitoring and review procedures associated with these measures must be greater than quarterly to allow appropriate and timely reaction to any issues raised. The process must also set out the asset inspections before, during and after the construction of the Project. This Operating Agreement process may require a Third-Party Agreement or a Bond, which will be determined as part of the agreement to this mechanism for protecting the structure and soundness of the LRN.</li> </ul>	<p>New</p> <p>No change</p> <p>No change</p> <p>No change</p>

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		e. The systems must also allow for unforeseen traffic management measure to be agreed between the Project and the Local Highway Authority where the need arises but was not predicted during the determination of the DCO.	No change
Appendix A All Plates	Key	a. It should be clear what "long term" is. HE should add duration e.g. > 3months b. Do the long term schemes correspond with those listed in the main body of the report in Table 4.2 (main works) and Table 4.3 (utilities specific)? c. What does other mean? Its unclear.	New
Appendix A – Roads North TM Measures Table A4	Access to A1089	HE should set out how access to and from A1089 in all directions will be maintained during the works, including whilst the new connections from A13 are being configured. Will access to the Port of Tilbury and the commercial premises around that area be retained. When closures are required for final connections, how will this be communicated, especially to the Port of Tilbury and other commercial operators in that area?	No change
Appendices A and B Table B2	Fort Road	This route is not suitable for workforce access, especially for access on foot or by cycle or motorcycle due to the potential conflict with large vehicles.	No change
Tables A3 and B2	Station Road	This corridor is not suitable for large vehicles, especially in volume. Using station road for the site establishment of the compound CA5 is not appropriate. As well as significant materials movement, site establishment would include AILs delivering, swapping out and removing large plant involved in the creation of the compound and associated welfare. The Flexible Generation DCO representations from NR have highlighted concern with safety on the approach to the Low Street level crossing. This may be another issue with the Fort Road route for LTC.	No change
Table B2	Princess Margaret Road	It is stated that a workforce shuttle bus may be established from East Tilbury Station. Why is this station the target for workforce travel, rather than Tilbury Town? Establishment of robust pick up and drop off facilities would be required for either East Tilbury or Tilbury Town.	No change
Table B2	Muckingford Road	This route would be used by significant volumes of construction traffic to create the new overbridge unless that traffic is able to access the works via internal haul routes. That traffic would involve large plant and materials. What measures are to be put in place to protect vulnerable users, particularly those accessing the recreation and sports ground on this road? What measures are proposed during peak periods of activity at the sports pitches? This element	No change

Relevant Section in the oTMPfc		The Council's Comments	Comment Status
		of the works should be programmed after the trace is installed so that access along local roads is minimised.	
Table B2	A1013 / Stanford Road	The strategy for the works on this corridor will need a much wider focus where local strategic traffic would be displaced to other routes, such as the Stifford (A1012) Lodge Lane corridor, particularly during night-time closures. Will this element be programmed after the trace is installed so that access along local roads is minimised?	No change
Tables A3, A4 and B2	All routes	<ul style="list-style-type: none"> <li>a. All these routes and proposed TM requirement need in-depth discussion and planning as proposal carry considerable challenges for managing traffic through alternate routes. Also, these routes are not equipped for the additional traffic and are already a maintenance challenge.</li> <li>b. Is there scope for the works to upgrade and strengthen in areas if new stats connections are laid through them?</li> </ul>	No change

## 2.2 Summary and Recommendations

### Summary

- 2.2.1 The updated version of the oTMPfc has addressed some of the earlier comments made by the Council. Further information has been provided in relation to management and governance procedures and proposed traffic management scheme information. In particular this includes:
- i. Committing to the appointment of a Traffic Manager by the scheme promoter with further information on their roles and responsibilities.
  - ii. Further details around governance arrangements including the proposed Traffic Management Forum and its membership, roles and responsibilities etc.
  - iii. Some further information around proposed monitoring of traffic management and production of monitoring reports.
  - iv. A full list of proposed traffic management schemes (short and long-term) associated with the main works, tunnelling, and utilities work.
- 2.2.2 These changes are welcomed, however, the oTMPfc still only provides a broad range of measures and processes and the Council still believes that it does not provide sufficient detail, certainty or commitment and a clear governance process to give comfort that the temporary traffic management measures will be acceptably controlled and managed or that impacts on the operation of the Local Road Network (LRN) and local communities within Thurrock will be suitably mitigated. The headline concerns are related to:
- i. The lack of a clear set of traffic management principles, objectives and commitments set by the scheme promoter to clearly direct the contractor in the production and implementation of TMPs and associated schemes across all phases of work. The suite of TMPs must be co-ordinated, current and relevant.
  - ii. The proposed disapplication of the council's network management powers, including the current street works permitting systems and the consenting on temporary Traffic Regulation Orders, to which Thurrock Council is not able to agree. The changes would impact on the Council's ability to manage effectively the LRN including works being carried out as part of the delivery of the Project and also works carried out by other major projects and day to day operations on the LRN.
  - iii. The need for a clear commitment in this document by the promoter and all contractors (and their sub-contractors and suppliers) to exemplary levels of best practice in safety, efficiency and environmental protection in relation to construction logistics management and fleet operation. There should be a requirement for contractors to operate to the Construction Logistics and Community Safety Standard (CLOCS) and Fleet Operator Recognition System (FORS) Silver Standard with progression to Gold.
  - iv. The lack of emphasise in the document on the importance of managing construction traffic and traffic management scheme interfaces with, and impacts on, pedestrians, cyclists and other vulnerable road users.
  - v. The need for further information on proposed monitoring, reporting and enforcement arrangements that will be put in place across all construction phases – particularly in relation the scope of monitoring proposed and KPIs that will be regularly reported. Effective enforcement mechanisms also need to be clearly set out in the document.
  - vi. The need for further definition of the management and governance procedures that will be required and put in place during the construction phases.



- vii. The management and reporting processes of incidents and emergencies which affect the operation of the travel networks – which should include contingency planning and defined contingency routes and the reporting processes of the incidents.
  - viii. The details on the commitments that will be required of the contractors prior to and during the construction works and in the decommissioning and hand-over phases.
  - ix. Recognition and inclusion within the strategic and local Transport Planning modelling of the significant movements of LGV construction related traffic as well as the HGVs.
  - x. A Promoter led Requirements on the co-ordination of the contractors to provide detailed appraisal of the effects on the road network of the delivery stages of the Project, in particular the delivery of the A13 interchange and the impacts on the operations of the network.
  - xi. Detail on the designated access routes that would be managed/ enforced and the consequences of non-compliance; and
  - xii. The management and co-ordination of protections to the affected local road network and how that would be set out within an operating agreement.
- 2.2.3 It is the Council's opinion, however, that it should be the approving body for construction period management plans including the contractors' CTMPs. If it is determined that this is not the case then the governance of those TMPs and the process for agreeing them, prior to approval by the SoS, needs to be set out in the oTMPfc. This would give direction and clarity to the appointed contractors and the Council. HE refers to reporting to the SoS that consultation with local authorities has been undertaken, however, the evidence to the SoS must include a report as to what feedback was received and how it has been addressed. This is fundamental if the local authority is not to be the approving body. The local authority must have the right to respond to the report and a system of conflict resolution identified.
- 2.2.4 The document does not provide currently a robust enough framework from which subsequent detailed TMPs would be developed by the appointed Contractors.

## Recommendations

- 2.2.5 The oTMPfc must be a robust framework to provide a Certified/Control Document within the DCO and must be clear and explicit as to the commitment the Promoter requires its contractors to meet and observe. That level of clarity cannot be left to future developments of the resultant TMPs.
- 2.2.6 The table within this response document sets out points of observation and concern relating to the updated oTMPfc as submitted by the Promoter. These points and in particular the key concerns outlined above should be addressed by the Promoter.
- 2.2.7 The key points include that Thurrock Council does not agree with the current proposals to disapply powers related to the street works permitting systems or the 'Making' of temporary Traffic Regulation Orders by the Promoter on the LRN. Revisions to these proposals must be agreed prior to the certification of the oTMPfc.
- 2.2.8 There needs to be a clear set of traffic management principles and commitments set by the scheme promoter in the outline document to direct the contractor in the production and implementation of their TMPs.
- 2.2.9 Further detail should be provided (as set out in the comments table) in relation to mechanisms for governance, co-ordination, monitoring and enforcement of the TMPs and the enshrined processes must be set within the oTMPfc to give a structure to which Thurrock Council can agree and that the contractors can conform.



## Lower Thames Crossing

### Review of Framework Construction Travel Plan

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

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Revision	Date	Description	Prepared	Reviewed	Approved
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B	05/10/2021	Issued to National Highways	-	<i>CB</i>	<i>CB</i>

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the draft Framework Construction Travel Plan version 0.1 dated May 2021 and a revised version 0.2 dated June 2021.
- 1.1.2 This document sets out the Council's comments on the draft Framework Construction Travel Plan (FCTP) and the effects of the movements of the workforce on the local and strategic travel network. It identifies if there are any suitable opportunities to improve that plan to minimise the effects on the borough of Thurrock and its communities.
- 1.1.3 The document responds only to the sections of the FCTP relating to the north of the river.

## 1.2 Key Themes

- 1.2.1 The Council has several concerns and comments on the draft FCTP which are set out at Table 2.1 of this document. The key themes are summarised as follows:
  - i. The delivery of the LTC project must reflect the objectives set out in the NPS for National Networks (NPS NN). It is the Council's opinion that Project as a whole does not effectively meet the requirements of NPS NN, however, this is compounded by the FCTP which does not demonstrate sufficient drive towards supporting a switch to sustainable travel and assisting in meeting the Governments legally binding targets on carbon reduction.
  - ii. HE should reflect on the points raised by the Council's report prepared by Hatch (dated October 2020) which has raised the requirement to mitigate the transport and travel effects of the construction period, as contained within points M1 to M11 of that report and indirectly through CLS1 to CLS12. Furthermore, HE should reflect on the potential to leave a positive legacy following the construction period which is further reflected in the Hatch Report at points L3, L5, L7 and L8.
  - iii. The aspirations to reduce the need to travel and to encourage active travel and sustainable travel are admirable aspirations. The Council recognises that these can be challenging to achieve for construction projects where the destination compounds are often remote from appropriate active travel opportunities or where workers are not able to work remotely. For the Travel Plan to be effective there must be a robust and proactive commitment and governance from the client and contractor with leadership from motivated and motivational Travel Plan Co-ordinators and Managers. Paying lip service to the Travel Planning agenda will not derive results or benefits. HE should lead by example and set strong commitments to achieve stretching targets both for its own workforce travel patterns and those of its contractors. The FCTP as prepared does not provide this solid foundation.
  - iv. It is the Council's opinion that due to the relative remoteness of many of the compounds, HE cannot rely on significant numbers of workers commuting by walking and cycling and so there must be a substantial reliance on facilitating travel by public transport to effectively reduce the impacts of workforce travel within Thurrock. Reliance on car sharing as a major component of mitigation is likely to have limited impact, especially as car travel is not restrained due to substantive parking provision at compounds. This is further affected where HE states in the draft Code of Construction Practice at paragraph 6.3.5 (a) that it will not support walking or cycling to the compounds which use routes that

are not street lit. That requirement would rule out walking and cycling to any of the compounds.

- v. The Travel Planning messaging throughout the Project period needs to begin when the workforce is selected and should be consistently rehearsed as the project progresses. Travel Planning benefits are maximised if they are embedded when workers are taking their first decisions about joining the project and not when they have started to adopt their travel patterns. The FCTP therefore needs to recognise the need for early proactive engagement with workers at the time of appointment.
- vi. The travel impacts associated with the Project will start long before the construction period itself starts. The Travel Plan initiatives should include the pre-commencement and site establishment stages, to ensure that the early workforce is equally incentivised to walk, cycle and use environmentally sound travel means.
- vii. The FCTP must set robust rules of governance for the travel plan that will be adopted and implemented through the TPLG. This must include roles and responsibilities of the members of the TPLG, and arrangements for decision making and dispute resolution. This should ensure that the Local Planning Authority and Local Highway Authority have a key role in setting targets and holding the promoter and contractor to account for the performance of the travel plan. The governance process must have the ability to both incentivise target exceedance and impose sanctions and corrective actions as identified and required through the monitoring and review process.
- viii. Where HE and its contractors are not able to mitigate the effects of its workforce travel, they should look to complementary initiatives which help others, not directly related to the Project, transfer to active travel or other environmentally sound modes of travel. These could include improvements to local cycling and walking facilities or public transport focused measures. This would help to off-set the effects of the project and would leave a positive legacy in the area.



## 2 Review of Framework Construction Travel Plan

### 2.1 Comments

Table 2.1: The Council's Comments on the Framework Construction Travel Plan

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
General	A reference table is needed for Abbreviations/Acronyms/Terms.
<b>Chapter 2: Introduction</b>	
2.1	The purpose of the document should also capture worker movement on site to promote sustainable movement – e.g. electric or alternative fuel site vehicles or active travel around the worksites (within safe zones) and between compounds.
2.1.3	FCTP refers, here and at other points in the document, to reducing the need to travel. Initiatives aimed at this reduced need should be identified e.g. virtual briefings and meetings and home based / flexible working for design based staff.
2.2.9	The Council reserves its response on the effectiveness of the project “ <i>to avoid or minimise significant effects on the environment</i> ”.
2.3.1	The FCTP is not a “ <i>standalone</i> ” document as it has its roots and links to many other documents including the CoCP, the oTMPfC, REAC, etc.
2.3.9 c	The SSTP must also recognise the changing nature of the travel network during the project period. These will be because of the project itself and also as a consequence of third party initiatives.
2.4.1	It is positive that HE will own and be responsible for the execution and management of the FCTP and the resultant SSTPs. The initiatives contained within the FCTP and SSTPs must apply to its own workforce employed in relation to the Project as well as the contractors' and suppliers' workforce.

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
<b>Chapter 3: Aims and Objectives</b>	
3.1.3 (a)	<p>a. The Council is not of the opinion that “<i>the Project is committed to.... sustainable travel</i>”. It is the Council’s opinion that there is a long way to go before it is convinced that the design of the Project facilitates sustainable travel. These concerns are identified through other engagement with HE and are not covered in this response document.</p> <p>b. If point 3.1.3(a) is intended to express the commitment of HE to facilitate sustainable / environmentally sound travel through the execution of the FCTP and related SSTPs then this is admirable, however, how are the contractors, sub-contractors, and suppliers to be incentivised to minimise workforce travel impacts and maximise benefits? The FCTP indicates intentions but aspirations and objectives need to be binding and have incentives if they are to be of value. This applies equally to HE itself where employees and its sub-consultants are working from the compounds and Project worksites. Will the Travel Planning initiatives for those workers be enshrined in the respective SSTP or will a bespoke Travel Plan be prepared for “Client” staff?</p> <p>c. Further to the paucity of commitment to sustainable travel, the FCTP does not recognise at all the need for travel by those with mobility impairments. In the interests of equality, the contractors should be incentivised to provide facilities to help those with mobility impairments travel to and from the Project and to move around the project as needed.</p>
3.1.4 (a)	<p>It is the Council’s opinion that the remote locations of most compounds make walking and cycling unlikely to be primary and regular chosen methods of commuting for workers, especially reflecting the working hours and anticipated shift patterns. This is echoed by HE themselves where it states in the Code of Construction Practice that “<i>Walking and sustainable forms of transport at sites shall be supported where travel can be completed in a lit highway environment, with footways for pedestrians</i>” i.e. walking and cycling will not be supported where access is along routes without street lighting. The main compounds around the north portal are many kilometres from the closest residential areas around Grays, Linford, and Chadwell-St-Mary etc. with connections poor and uncondusive. How does HE realistically propose to encourage and facilitate active travel to compounds when it is also proposing that walking and cycling in remote areas is not to be supported? The document recognises that active travel is only realistic where people feel safe. With the rural nature of most access routes there will be many periods when people will not feel safe. Furthermore, statements in the FCTP about the existing network as far away as Aveley and Horndon-on-the-Hill etc. have no relevance to commuting by walking and cycling to the works compounds.</p>

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
3.1.4 (b)	How will the supply/demand balance be managed within compounds? It is incorrect to set parking provision as a percentage of the number of workers (sections 5.5 refers) it should be a factor of the accessibility of a compound, however, poor accessibility should not be a justification for high numbers of parking spaces but should lead to improvements in environmentally sustainable options for access. How will HE manage this dilemma? What mechanisms will be put in place to ensure parking does not cascade to other compounds and result in movement between compounds along the trace or disguised as essential inter-compound travel?
3.1.4 (c)	The wording " <i>likely</i> " in relation to shuttle bus provision doesn't provided confidence that this will be provided. Will HE commit to an effective shuttle bus system that is incentivised, perhaps through parking restraint at the compounds? What work has been done to ensure that the shuttle system would align with train timetables and shift patterns, especially for the compounds further from the Grays or Upminster hubs? Those shuttle buses should be electrically, or hydrogen powered or use other non-polluting fuel.
3.1.6	Reference is made to the Travel Plan Co-ordinator (TPC) and, latterly, Travel Plan Managers (TPMs). To be effective, these posts must be filled and maintained by empowered, motivated and motivational employees. The job spec for these roles must be set out and the contractors must maintain that level of commitment throughout the project, to maintain momentum. It will not be suitable for the role to be a bolt on to another role, where that person's functions would be divided and diluted. It will be essential that HE has a robust overseeing TPM to guide and govern the FCTP and SSTPs effectively. HE should commit to appoint and maintain this role throughout the project.
3.2.11 (d)	Shared worker transport should also recognise the use of crew buses. Those crew buses should be powered by non-fossil fuelled engines as should the shuttle buses and other site vehicles. HE has a duty to lead by example in the construction industry by pressing for non-polluting fuelled vehicles.
<b>Chapter 4: Management and Organisation</b>	
4.1.4	The FCTP should stipulate the threshold above which sub-contractors should provide a TPC or Travel Plan Representative (paragraphs 4.3.1 (f) and 4.4.2 refer) e.g. more than 20 workers employed on the project.

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
4.1.5	Why are the TPCs from the contractors not <b>required</b> to attend the TPLG? This is the forum where they will provide and receive feedback. Any messages would be watered down if they are conducted through the TPM.
4.2.1 (e) and (g) and Table 10.1 Item 29	To whom will the TPM report progress and how will that person “ <i>determine amendments</i> ” are appropriate to resolve short comings of the SSTPs? The Council should be engaged with proposed amendments, not least where they affect the operation of the local transport network. The FCTP should define what the “regular basis” is. The Project Action Plan (Table 10.1) item 29 stipulates “ <i>Within the first six months of construction (repeat every three months)</i> ”. It is fundamental that Thurrock Council is engaged in the monitoring and review of SSTPs (assuming that the FCTP is a consented and unamended document post consent). Whilst data should be collected continuously by the contractors for the Council to review on a monthly basis, it is the Council's opinion that it must be a primary partner in the quarterly reviews of the SSTPs. That review and management role resource commitment will require a dedicated representative to be funded through the project.
4.2.3 and 4.6	How will the JOF be co-ordinated with the TPLG and will these fora be able to impose sanctions for non- compliance with travel plan targets? The FCTP states that the JOF “ <i>will meet regularly</i> ” but the interval should be stated. Paragraph 4.6.1 stipulates that the TPLG will meet monthly. The Council questions whether this frequency is appropriate throughout the contract period when monitoring and surveys are less frequent? The meetings should be monthly to review progress against targets and analyse compliance with quarterly reviews of the SSTPs against compliance but also to review programme and initiatives. The lower frequency should be more effective and avoid review fatigue.
4.3.1	As previously expressed, HE must not only appoint but maintain a suitably qualified, motivated, and motivational TPC throughout the pre-commencement and construction period.
4.3.1 (a)	What are the “ <i>contractual requirements</i> ” that are referred to? As it is current written the FCTP has no requirements other than appointing TPCs and providing monitoring information. There are no binding incentives.
4.3.1(c) & 4.5.1	How will HE and the contractors ensure or enforce worker compliance with the responsibilities indicated in the FCTP? The responsibilities set out at Section 4.5 are not contractually binding and should perhaps not be so. It is the role of the employer to encourage workers to commute by environmentally sound means and to provide the facilities to allow that travel, such as convenient and attractive walking routes; high quality and plentiful cycle parking; robust shuttle bus services; and appropriately constrained vehicle parking provision.

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
4.6.1	The proposal for the Travel Plan Liaison Group is positive, but the FCTP must set out how the group will be constituted, lead, controlled and any voting rights. The group must have a mechanism to impose sanctions having reviewed compliance against binding targets. The constitution should include the mechanism for dispute resolution and be given the mandate to apply Project funds where needed to provide corrective action. The governance and management of this group has to be set within the FCTP and cannot be left to be determined post consent. The Council must be a prime member of the group and help with the day-to-day management of the Travel Planning initiatives. Dispute resolution should, perhaps be the jurisdiction of the Secretary of State as a last resort.
4.6.6	The Council is unclear as to how the FCTP can be an iterative document. The FCTP would be set through the DCO examination and should be a certified document which provides the framework for the SSTPs which would be developed after the DCO consent.
Plate 4.2	This diagram needs to show how TPC and JOF feed into the TPLG. As stated in relation to paragraph 4.6.6, the FCTP should be a fixed and certified document out from which there would be no monitoring and reporting. The monitoring and reporting strategy would come from the SSTPs.
<b>Chapter 5: Project Construction Details and Program</b>	
5.2.3	The FCTP and resultant SSTPs should encapsulate the pre-commencement and site-establishment stages of the project in advance of " <i>construction</i> ". These stages require workforce travel in connection with the Project and will start to set people's travel choices.
Plate 5.1 to Plate 5.4	These diagrams need to be clear and legible in the finalised document. Separate keys may be needed as they are too small to read and blurred. The access routes to compounds CA5 and CA5a need to reflect the new Tilbury 2 Infrastructure Corridor.
5.4.1 and 5.4.2	Will the haul and link roads to compounds be suitable for walking and cycling access? It is the Council's opinion that the compound locations are not conducive to walking and cycling access, however, these will be even less suitable if the routes within the compounds do not facilitate safe and convenient access on foot or by cycle.

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
5.5.1 to 5.5.3	<p>a. The assumed travel distances for the workforce base for public transport access should assume the time taken to access the origin station or bus service and the period to travel from the destination hub or bus stop. This would significantly reduce the geographic coverage for a 60 minute journey.</p> <p>b. The working periods should further reflect the availability and suitability of public transport services for worker commuting periods e.g. allowing workers to arrive at their briefing locations in sufficient time or to allow time to access the station or bus services after their working hours. In particular, early and late tunnelling shift are not suited to public transport due to the early start or late finishes. How will these challenges be resolved without encouraging travel by private cars?</p>
5.5.7	The percentage mode share for access by private car should reflect the accessibility of a compound by other means and the provision of other initiatives to discourage car travel. It is defeatist to assume that smaller compounds will attract a higher proportion of car travel. There would be no incentive to the contractors to encourage sustainable travel to the compounds will fewer workers. Compounds CA6- CA13 should not be dismissed as in accessible by anything other than the private car. Initiatives such as car sharing, shuttle and crew buses should continue to be promoted. Longer distant cycling should also be encouraged.
5.5.8	If " <i>conservative assumptions</i> " are taken within the FCTP there is no incentive to the contractors to develop SSTPs that will maximise active and environmentally sound travel initiatives. The FCTP should set stretch targets.
Table 5.2	Table 5.2 postulates that at peak only 18% (311) of the northern workforce will live within a 60 minute journey of their base compound. Those workers are assumed to be resident within the wards identified in Plates 5.11 to 5.20. The table shows 932 workers requiring accommodation. Is there evidence that that number of workers can be accommodated within the 60 minute journey profiles – with an emphasis on active or environmentally sound travel? The workforce assessment within the FCTP must align with the Worker Accommodation Summary on which the Council has previously commented.
Table 5.3	The term "two-way hourly car trips" should be explained. A trip consists of two movements (in and out) and so the term used in the FCTP is unclear. The numbers within the righthand column do not appear to correlate with the numbers of workers. What controls are in place to restrict the number of workers assigned to each compound? There is no incentive to contractors to minimise workers located at compounds where a 100% car based travel is currently accepted by HE.

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
5.5.11 and 5.5.16-5.5.20	Specialist workers are generally going to migrate from the main contractors' existing work sites, it is unlikely that a significant proportion of workers will live in the 20% + concentrated areas identified. It is further unlikely that workers will be attracted to work north of the river from the Isle of Grain and Medway Towns and Maidstone wards which is indicated by Plate 5.12. How does correcting this assumption impact on the assumptions for travel to the compounds located north of the river? What measures will be put in place to ensure that workers from wards south of the river attracted to work at compounds north of the river do not travel by car?
Plates 5.11 to 5.20	How is the information provided within the plates used to influence the travel targets for the FCTP and the resultant SSTPs? What relevance is drawn from the data?
5.6.5	As with works compounds, what controls are there in the Utilities compounds to restrict the number of workers assigned to each location.
<b>Chapter 6: Hub Accessibility</b>	
6.5.2	The information on travel time is misleading, the aspiration in the document (5.5.1) is 60 minutes' travel time to site, the indication of an hour travel by train extends the travel time beyond the 60 minutes as time to access the station at commencement of journey and the time to travel from the hub to site will be significantly greater than the hour. A more realistic rail journey as part of a 60 minute journey would be approximately 30 minutes to allow for the further interchange between the hub at Grays or Upminster and the destination compound. This would dramatically reduce the rail catchment to the two hubs.
Section 6.2	This section completely ignores the local routes that will be used to access the compounds whether on foot, cycle, bus, or another vehicle. Of significant impact will be the roads within the Port of Tilbury, Fort Road, Coopers Shaw Road and Muckingford Road or Stifford Clays Road and Stanford Road. The paragraphs do not provide any context as to the description of the routes and what the consequences are of those routes being used for travel to the compounds. The section does not describe the barriers to movement that exist along those routes or what measures might be required to improve the environment or facilities to encourage active travel along those corridors.
Section 6.3	a. This section clearly identifies the challenges to accessing the works compounds by active travel and identifies several footways, footpaths, cycle routes and bridleways which would offer little benefit to workers accessing the compounds.



Relevant Section in the Framework Construction Travel Plan	The Council's Comments
	<p>b. A diagram indicating the connections that are maintained to provide access would indicate the limited value to commuting workers, showing them as either remote from the compounds or in unsuitable rural locations and not offering highly attractive commuting routes. HE should substantiate how the purported network of roads would add value to the commuting network.</p>
6.4.1	<p>HE should set out in greater detail how it envisages to establish a shuttle service from the identified “transport hubs” to the works compounds. As these hubs would serve compounds across more than one contract the co-ordination would fall to HE and minimum services should be specified in the FCTP indicating which compounds would be served and how those shuttle services are co-ordinated with other bus and train services. This would give fuller certainty as to the positive contribution those shuttle services could provide in reducing car based travel.</p>
6.4.5	<p>HE indicates that there could be a draw from Kent wards to work north of the river and that those workers could use the ferry services between Gravesend and Tilbury. The ferry operates across a reasonable period each day but at a relatively low frequency and with the last service departing at 19:10hrs from Tilbury this could be challenging for workers ending their shift at 18:00. The document is also misleading in that the first service from Gravesend is currently 05:40hrs. The alternative public transport connection replacing the ferry at times of disruption involved three bus services and is, therefore, not a tenable alternative. HE commissioned a study by Atkins [Lower Thames Crossing - Sustainable Transport Complementary Measures 31.03.21 version 1] with a remit of considering complementary sustainable transport initiatives and measures which would supplement the operational LTC. Whilst the report capitulated and only recognised measures to enhance the cross river ferry service, that aspiration could help to provide additional options for workers to access compounds north of the river. Is HE proposing to enhance this connectivity as part of the construction programme for workforce travel? This enhancement would provide a legacy to the area and could help to reduce demand for car based trips not directly associated with the construction of LTC. Connectivity into London by fast ferry should also be further reviewed in partnership with the Thames Clipper operator.</p>
6.5.4	<p>The FCTP includes an estimation of the cycle to hub commuting catchment. Is it proposed that workers cycles are taken on the shuttle services to the destination compounds or are those cycles to be stored at the hub? In either circumstance the FCTP should set out how those cycles are catered for and whether infrastructure is required at the hub or on the shuttle buses.</p>

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
	What detail has been developed of the circulation of the shuttle services, such that they will need facilities at the hub stations to collect and deposit passengers, and potentially their cycles? These facilities will need not to hinder the safe and efficient operation of the hub stations for existing passengers and services.
6.5.7 and 6.5.8	These paragraphs appear to suggest that there will be opportunities for workers to drive to the hub stations and complete their journey to the compound from there. What facilities are proposed for workers to park their vehicles at the hub stations? How will this impact on existing communities and facilities?
<b>Chapter 7: Policy and Guidance</b>	
General	<ul style="list-style-type: none"> <li>a. This section of the FCTP does not reference the NPS NN. It is the Council's opinion that the construction period is considered to be part of the development of the NSIP and therefore the NPS NN is relevant to the FCTP. NPS NN has an objective "<i>to address the impacts of the national networks on quality of life and environmental factors</i>" (NPS NN paragraph 2.2) and "<i>to minimise social and environmental impacts and improve quality of life</i>", (NPS NN paragraph 3.2).</li> <li>b. Enshrined in the NPN NN is a drive to bring about a modal shift towards more sustainable travel not only on new parts of the network but on the existing SRN. It notes the need to meet "<i>the Government's legally binding carbon targets</i>" (NPS NN paragraph 3.6) which is expanded at NPS NN paragraphs 5.16 to 5.19. Even though this document relates to the temporary nature of the pre-commencement to demobilisation period of the Project, the core objectives of the NPS NN should be reflected within the aspirations, objectives and mitigation in the FCTP. This is supported throughout the NPS NN not least at paragraphs 5.201 to 5.205, 5.215 and 5.216.</li> <li>c. NPS NN supports the switch towards ultra-low emission vehicles and choices to use sustainable transport (NPS NN paragraphs 3.6 and 3.15, respectively) and to overcome barriers to movement which are created by the SRN (3.17) and to providing a more inclusive network to assist with access to jobs, including this Project.</li> <li>d. The national regional and local policy and guidance surrounding worker Travel Planning is focused on encouraging a greater proportion of commuting travel to be carried out using active travel means or environmentally sound public transport. It is the Council's opinion that HE is paying only lip service to this policy and guidance through the FCTP and will not be incentivising its contractors to adopt environmentally sound worker travel patterns. Paragraph 7.4.6 captures only the tip of the intentions</li> </ul>

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
	<p>of workforce Travel Planning and does not encapsulate how these documents should seek to inform travel choice and mitigate the impacts of worker travel on the transport network and on the environment. Recognising its "<i>corporate social responsibility</i>" (paragraph 7.3.16 refers), will HE revisit the FCTP and significantly strengthen the aspirations, requirements and commitments contained therein to minimise the effects on the local travel network of their workforce travel?</p>
<b>Chapter 8: Targets</b>	
Targets	<p>a. The Council acknowledges that HE does not know the origin of the workforce for the project and therefore the SSTPs generated by the contractors must be flexible and agile to respond to workforce changes and emerging travel patterns. The FCTP should, however, define headline targets to be adopted by the contractors to incentivise them to achieve minimal impacts on the travel network. The FCTP should set out what action or consequence will apply if targets are not met, refer to comment 11.4 below.</p> <p>Potential targets could include:</p> <ul style="list-style-type: none"> <li>i. 50% of car trips to site made by EV (supports EV charging in Tier1)</li> <li>ii. 2% trips by cycle</li> <li>iii. 2% trips by foot</li> <li>iv. 50% trips to site via PT</li> <li>v. 25% of workers employed at compounds north of the river living within Thurrock Borough</li> </ul> <p>b. It is essential that HE seeks to maximise the local focus for employment and that must be reflected within the FCTP indicative targets and taken through to the SSTPs.</p>
8.1.6	<p>Defining targets based around preliminary surveys will only generate soft targets informed by established travel patterns. Stretch targets should drive minimal impacts and encourage environmentally sound travel choices. The method of establishing the targets within the SSTP should be revised.</p>

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
8.1.7	The initial surveys should be carried out during the pre-commencement phase of the project and not once construction has started.
8.2.6	Where does HE conclude that walking and cycling to the works compounds is not safe? It is noted that HE does not support walking and cycling in unlit areas, as per its Code of Construction Practice, which severely limits options for encouraging active travel by its workforce or that of its contractors. In those locations if there is, or should be, demand to walk and cycle then remedial measures should be provided, or alternative non-polluting provision made for other means of travel.
8.3.6	Reductions in the need to travel should not be limited to the " <i>enterprise office</i> " which is to be located south of the river. Virtual briefings and meetings must be promoted and workforce movements between compound minimised or co-ordinated using multi-occupant non-fossil fuelled vehicles. Design focused workers should be empowered to work remotely where appropriate.
<b>Chapter 9: Measures</b>	
9.1.3	HE should commit that the TPM will audit the measures and initiatives to be implemented by the contractors as some of these may not be implemented by the contractors unless evidence is provided.
9.2.5 (e)	<ul style="list-style-type: none"> <li>a. The contractors should offer cycle training and maintenance to encourage new cyclists into the system and to make sure that all systems are suitable for all levels of cyclist.</li> <li>b. To facilitate cycling between stations and compounds HE and the contractors should consider providing cycle storage at the stations to allow workers to commute by train and travel the final section by cycle.</li> <li>c. The FCTP is silent on the use of powered two wheelers and other motorcycles. Will these vehicles be provided for and if so, will advanced training be provided to ensure riders are safe for themselves and other road users?</li> </ul>
9.2.7	The provision of electric vehicle charging must be provided in all tiers so as not to stifle the use of electric vehicles. This will also support the use of electric site vehicles and electric shuttle buses.

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
<b>Chapter 10: Implementation Strategy and Action Plan</b>	
Table 10.1	<ul style="list-style-type: none"> <li>a. The timeframes for actions should be revisited. The table should recognise the pre-commencement and site establishment stages and consider the appropriateness of review periods. Reviews carried out too frequently will be abused and create process fatigue. Review periods should be not greater than quarterly and potentially reduced to 6 monthly once the compounds are established.</li> <li>b. The heading of the righthand column is slightly misleading in that several actions will be on-going throughout the Project period and therefore not competed after the first iteration.</li> <li>c. Action 12 indicates a review of active travel but does not express that there is a consequential action to respond to that review. The same is true of other 'review' actions. Only Action 20 notes the need for subsequent remedial action.</li> </ul>
10.3 and 11.5.2	Will HE set a financial cap on the funding for Travel Plan measures and initiatives? If so, what will that cap be? Are the contractors expected to contribute to the fund? This is not clear in this section.
<b>Chapter 11: Monitoring and Review</b>	
11.1.2	What does the term "obliged to commit" require the contractor to do? Is there to be a legally binding agreement that has financial incentives where compliance and meeting targets are rewarded or penalised? These obligations need to be set within the FCTP for the contractors to adopt and will be enforced through the TPLG and could include incentives for the contractors where targets are exceeded. There must also be sanctions where the contractors do not meet targets with corrective action required and monitored through the TPLG.
11.2.1	<ul style="list-style-type: none"> <li>a. The review periods stated at this section should be aligned with the action plan at Table 10.1 and should include pre-commencement and site establishment periods. Travel survey should capture travel data on all new workers.</li> <li>b. The data on workers needs to pick up the length of time they are expecting to be working on site e.g. 1 week, 1 month, 6 months, 1 year plus. This will give an indication as to which groups are likely to be influenced to long term sustainable travel.</li> </ul>

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
	<p>c. Data will be collected at the compound gate lines when workers arrive and depart which will provide information on travel patterns and means of access. That data can be reported regularly to the Council and the Client team. This will reduce the need for repeated worker surveys and will provide robust data for analysis and assessment. It will inform remedial actions.</p>
11.4	<p>There needs to be a financial incentive placed on the contractors to meet targets. As a last resort consideration should be given to a carbon offset scheme with additional tree planting specific to target failure. (e.g. 200 trees per month for each 5% over target, trees maintained for 5 years post scheme completion, provided locally). Not meeting targets will impact local quality of life and access to local businesses, delays and congestion on local routes and suppressed business development. Carbon off-setting would be a weak resolution.</p>
11.4.1 and 11.4.2	<p>a. HE should explain what is judged to be "significant" by way of a shortfall.</p> <p>b. Shortfall of modal targets if they are set as percentage targets will not be an issue if there is a reduction in the number of movements to that compound. The level of workforce at all compounds will fluctuate and so the targets should be expressed as percentages and not absolutes.</p> <p>c. The TPLG are stated as being presented with proposed remedial measures and changes. What powers of decision is the TPLG to be given to allow effective agreement to the remediation and changes? The FCTP must set out the constitution, governance, and powers of the TPLG and how disputes will be resolved. The TPLG has a substantial role during the lives of the SSTPs and so it is important to clarify its role and powers.</p>
<b>Appendix A</b>	
A7	<p>The London Mayoral policy is of subsidiary relevance in Thurrock Borough, albeit relevant to the London Borough of Havering at the Upmister hub, but the principles behind that policy are valid. The objectives of the SSTP must reflect the finally agreed FCTP.</p>

Relevant Section in the Framework Construction Travel Plan	The Council's Comments
A8	Will each compound have a bespoke SSTP and site specific targets? Will those individual plans impact on overall targets i.e. will under-utilised compounds be used to offset overall commitments?



## **2.2 Summary and Recommendations**

### **Summary**

- 2.2.1 The Council acknowledges the principal objectives set out within the FCTP document but remains unconvinced that HE is suitably committed to mitigating the travel effects of the workforce employed to deliver the LTC project.
- 2.2.2 The FCTP document would be used to inform the development of contractor led SSTPs, however the FCTP must set the bar much higher to incentivise the contractors to facilitate and encourage active travel and environmentally sound means of travel.
- 2.2.3 We have indicated that the FCTP does not recognise the full policy and guidance base for the Governments drive to switch to sustainable travel and that the FCTP does not capture or encourage sustainable travel and does not reflect the substantial feedback that the Council, has already provided, much of which is captured within the Hatch Report of October 2020.
- 2.2.4 The FCTP must set robust rules of governance for the travel plan that will be adopted and implemented through the TPLG. This must include roles and responsibilities of the members of the TPLG, arrangements for decision making and dispute resolution, clear targets for the travel plan, and robust mechanisms for attainment of the targets through the DCO.
- 2.2.5 We have set out key themes and detailed observations on which HE must reflect and respond before the FCTP is deemed appropriate for this Project.

### **Recommendations**

- 2.2.6 A range of comments and feedback are given within this response document and HE is encouraged to reflect on those and review the FCTP to develop a more robust and effective document which will derive equivalent robust and effective SSTPs following consent of the DCO.



## Lower Thames Crossing

### Review of Wider Network Impacts Management and Monitoring Plan

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of Wider Network Impacts Management and Monitoring Plan

**Doc Ref:** Revision B

**Date:** October 2021

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<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	NWB	SM	SM
B	05/10/2021	Issued to National Highways	-	CB	CB

This report has been prepared by Stantec UK Limited ('Stantec') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which Stantec was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). Stantec accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the assessment details for the Wider Network Impacts Management and Monitoring Plan.
- 1.1.2 This document sets out the Council's comments on the proposed Wider Network Impacts Management and Monitoring Plan and if there are any suitable opportunities to improve this infrastructure.
- 1.1.3 The document follows the same structure as Wider Network Impacts Management and Monitoring Plan and responds only to the sections relating to the north of the river.

## 2 Review of Wider Network Impacts Management and Monitoring Plan

### 2.1 Comments

Table 2.1: The Council's Comments on the Wider Network Impacts Management and Monitoring Plan

Relevant Section in the Wider Network Impacts Management and Monitoring Plan		The Council's Comments
<b>Chapter 1: Introduction</b>		
1.1	Purpose of the document	<ul style="list-style-type: none"> <li>a. General Comment - It should be clear that the scope of the Wider Network Impacts Management and Monitoring Plan only relates to the monitoring of operational impacts on the wider network once the project has opened. It does not cover monitoring proposed during the construction period.</li> <li>b. General Comment - Monitoring of the construction impacts on the road network will be required to effectively manage and mitigate their impacts. The Outline Traffic Management Plan for Construction (oTMPfc v 0.2) proposes the preparation of monitoring reports during the construction period. However, little further detail is provided in the oTMPfc regarding the proposed survey locations, data type / KPIs, frequency and period etc. A more detailed monitoring plan for the construction period is required, especially given the scale of construction activity proposed and the long period over which construction will take place.</li> <li>c. There is no reference to wider DfT or Highway England guidance or best practice having been used in developing this monitoring plan or whether DfT's monitoring and evaluation team have or will be engaged in developing this plan.</li> <li>d. Local Authority major schemes funded by DfT require monitoring and evaluation plans to be developed in line with DfT Monitoring and Evaluation guidance. All projects costing over £50m require a 'fuller' evaluation as described in the DfT guidance. Given the scale, cost and nature of this project the council would expect that this plan should form part of a project benefits realisation strategy and a project monitoring and evaluation plan. Typically this includes assessing impacts on travel demand/behaviour, impacts on economy, air quality, noise, carbon. It should be made clear if and how this plan links to wider project monitoring and evaluation and the scope of that work.</li> <li>e. Para 1.1.6 - refers to interventions being identified through a 'standard appraisal approach'. Is this referring to DfT Transport Appraisal Guidance or to Highways England's own appraisal guidance/methodology? The document should be explicit about the approach to be followed.</li> </ul>



Relevant Section in the Wider Network Impacts Management and Monitoring Plan		The Council's Comments
		f. Para 1.1.6: notes that interventions will be subject to assessment of the business case and the required consenting process. It should be clearer what stage business case will be required.
1.2	Position within the wider DCO application	<p>a. Para 1.2.3 – ‘sufficient management’ of the impact is vague. The purpose / outcome of the plan and monitoring regime proposed should be more explicit e.g. to demonstrate that there will be sufficient monitoring information and evidence available to provide Highways England and project stakeholders with a full understanding and assessment of the projects impacts on traffic flow and network performance across the wider road network so as to be able to:</p> <ul style="list-style-type: none"> <li>i. confirm the priority areas for intervention</li> <li>ii. inform the selection of preferred schemes and interventions in those priority areas</li> <li>iii. support the development of outline business cases for preferred scheme/s and interventions</li> </ul> <p>b. The report would be clearer if it included a diagram/flow chart - to clearly summarise the proposed impact monitoring and management process proposed, to clearly demonstrate how it will be delivered alongside the project lifecycle/delivery timeline and show how it will contribute to securing funding for interventions that will mitigate post construction impacts:</p> <ul style="list-style-type: none"> <li>i. when monitoring is proposed and monitoring reports will be produced</li> <li>ii. a breakdown of the further work that Highway England proposes using the monitoring information (that will enable the identification of priority areas and interventions and help secure funding)</li> <li>iii. roles and responsibilities</li> <li>iv. how it will assist in securing funding for interventions.</li> </ul>
<b>Chapter 2: Wider network Improvements</b>		
2.1	Background	Para 2.1.3 – ‘Continual assessment’ is vague – the monitoring and assessment/evaluation period needs to be defined.
2.2	Identifying potential improvement areas	<p>a. The Lower Thames Area Model (LTAM) forecasts have been used to assess the wider network impact of the project. The council has already responded to HE in October 2020 (<i>A review of the DCO Cordon Model</i>) regarding its concerns with the LTAM outputs, particularly that impacts of LTC on the local road network are underestimated.</p> <p>b. At the same time, in the absence of local road network impact assessments being undertaken by HE and prior to completing our review of the latest cordon models (issued by HE on 26.07.21), junction assessments were also</p>

Relevant Section in the Wider Network Impacts Management and Monitoring Plan	The Council's Comments
	<p>carried out by the Council at the following junctions to better understand the impact of LTC, with the base traffic flows adjusted to better reflect the observed traffic data:</p> <ul style="list-style-type: none"> <li>i. A1089 ASDA roundabout,</li> <li>ii. A13/A128 Orsett Cock junction,</li> <li>iii. A13/A128 The Manorway junction, and</li> <li>iv. Daneholes roundabout and A1013.</li> </ul> <p>The Council's junction assessments show that:</p> <ul style="list-style-type: none"> <li>i. The performance of some approaches to The Manorway and Orsett Cock roundabouts will be impacted by the introduction of LTC.</li> <li>ii. The off slips from the A13 at both The Manorway and Orsett Cock roundabouts are likely to block back on to the mainline and/or impact on the slip roads from the LTC.</li> <li>iii. The LTC causes the performance of the ASDA roundabout to significantly deteriorate.</li> <li>iv. Daneholes roundabout is at risk of regularly being used as a rat-run from the LTC to the Port and Grays area. Any further use of the A1013, than modelled in LTAM, would impact upon not only traffic delays, but the bus services that operate through the junction.</li> </ul> <p>c. To assist HE in its consideration of the impacts on these local roads, the Council outlined indicative mitigation which has been proposed at each junction and further detail is included in the '<i>Junction Assessment and Mitigation Analysis</i>' report prepared for the Council dated October 2020, which includes more details. The assessment work also showed a risk of greater use of the local road network, particularly the A1013 and via Chadwell St Mary and also at Rectory Road, Orsett and through Orsett village. As a result, the council identified that traffic management is required in these areas to mitigate impacts of LTC. The Marshfoot priority junction with the slip road to the A1089 is also a concern related to increased traffic and safety.</p>

Relevant Section in the Wider Network Impacts Management and Monitoring Plan		The Council's Comments
		<p>d. For Thurrock council locations and areas identified of concern and requiring mitigation can therefore be summarised as:</p> <ul style="list-style-type: none"> <li>i. A13/A1014 The Manorway Roundabout, including slip roads</li> <li>ii. A13/A128 Orsett Cock Roundabout, including slip roads</li> <li>iii. A1089 Asda Roundabout and/or Tilbury Link Road</li> <li>iv. A1013, B149 and Daneholes Roundabout</li> <li>v. Marshfoot priority junction with the slip road to the A1089</li> <li>vi. Orsett Village and Rectory Road area</li> <li>vii. Chadwell St Mary area</li> </ul> <p>Note: our concerns may vary upon completion of our review of the latest cordon models.</p>
2.3	Initial investigations	<p>a. Para 2.3.2 – notes that ‘some’ of the local authorities also undertook their own initial assessment. Add specific local authorities.</p> <p>b. Table 2.1 – clarify in table the highway authority responsible for each area / scheme.</p> <p>c. Table 2.1 – Thurrock Local Road Interventions – Thurrock has also identified the need for local road network interventions in the Orsett Village, Rectory Road and Baker Street area and Chadwell St Mary area.</p> <p>d. Table 2.1 – Thurrock Local Road Interventions update to “A13/A1014 The Manorway Roundabout”.</p> <p>e. Table 2.1 – Thurrock Local Road Interventions update to “A13/A128 Orsett Cock Roundabout”.</p> <p>f. Para 2.3.5 - The council disagrees with the statement that at this stage the need for change to the network is not yet determined. The council believes there is already evidence of the need for interventions including at a number of locations (see 2.2).</p> <p>g. Para 2.3.5 / 6 / 7 - The wording of these paragraphs describes a process that is vague, open ended and provides little funding security for measures required to manage the impacts of the project on the wider road network.</p> <p>h. Para 2.3.6 - ‘It is therefore considered that the need and the timelines for these interventions and possible schemes will be <b>monitored and managed separately from the project</b>’. If this is the case the project promoter needs to clearly identify who is responsible for this process and how it will be managed and governed. Also, a clear timeline/programme is required. The council and local communities require assurance that the promoter is committed</p>

Relevant Section in the Wider Network Impacts Management and Monitoring Plan		The Council's Comments
		to monitoring LTC impacts on the wider road network and delivering any interventions required to mitigate those impacts.
<b>Chapter 3: Monitoring strategy</b>		
3.1	Traffic impact monitoring scheme	<p>a. General Comment – see comments above – The council need to understand how this plan integrates with wider project monitoring and evaluation and how noise, air quality, carbon and economic impacts will be monitored and evaluated.</p> <p>b. General Comment - It is critical the scope of this plan also considers impacts on the local bus network (particularly impacts on journey times and journey time reliability) and non-motorised users e.g. pedestrians and cyclists. This is not apparent in the document at present and needs to included within its scope.</p> <p>c. Para 3.1.3 - Traffic flow / journey times – Indicate that analysis and reporting will be broken down by vehicle type.</p> <p>d. Para 3.1.2/3.1.3 – Traffic Routes – How will this be monitored? Through the use of ANPR?</p> <p>e. Para 3.1.3 Junction Performance – Greater definition should be given as to how this will be assessed e.g. capacity (RFC), driver delay</p> <p>f. Para 3.1.3 Road Safety – Any monitoring of collision data will need to be over a 5 year period to be of statistical significant. This should be acknowledged.</p> <p>g. Para 3.1.6 ‘at locations identified on the SRN’. These locations should specified or shown on a map.</p> <p>h. Para 3.1.8 – A plan should be added defining the proposed ‘study area’ and proposed monitoring locations. There should be more evidence provided as to how the wider network impacts study area / monitoring locations have been defined. Is it based on modelled forecasts of traffic flow impacts?</p> <p>i. Para 3.1.9 / 3.1.10 - A series of individual junction locations are proposed. The council would expect that the plan will be effective in monitoring both strategic and local road network impacts including any increases in rat running. The council believes further work is required by Highway England to define and agree all the monitoring locations and in particular on local roads that may be impacted by LTC. In Thurrock this includes along the A1013, B149, and at Daneholes Roundabout and on local roads through Chadwell St Mary and Orsett Village (which were identified by the council as areas of concern once LTC is operational and requiring mitigation - see para 2.2). Junctions such as The Manorway roundabout, Orsett Cock junction, ASDA roundabout and Marshfoot priority junction should also be monitored. The construction modelling provided by Highway England to date also raises concerns for the council</p>

Relevant Section in the Wider Network Impacts Management and Monitoring Plan	The Council's Comments
	<p>(Reference: Thurrock Cordon Model Construction Modelling Review, May 2021) regarding the high volumes of construction traffic (either construction vehicles or workforce vehicles) and its impacts at a number of local junctions and on local roads (see council's comments on construction update Chapter 2). Monitoring of the construction traffic impacts on the strategic and local road network will also be required to effectively manage and mitigate their impacts.</p> <ul style="list-style-type: none"> <li>j. Para 3.1.11 – Please indicate when this consultation is proposed.</li> <li>k. Para 3.1.12 - The criteria for identifying monitoring locations is currently narrowly focused on general traffic impacts e.g. changes to traffic flow, changes to junction V/C. Should also include criteria that recognise that monitoring will be required to address the council and local community concerns about impacts on the performance of the local bus network, NMU routes and potential local rat runs (particularly by HGVs).</li> <li>l. Para 3.1.15 - Post opening data collection is proposed at one year and five years. Over what period are the surveys proposed?</li> <li>m. Para 3.1.17 – An outline structure for the proposed monitoring reports should be provided. The reports should clearly identify/confirm intervention areas and provide evidence to support prioritisation.</li> <li>n. Para 3.1.17 – Suggests that the monitoring reports would also consider the suitability of and type of intervention that might be suitable. The council believes it is critical that monitoring work is accompanied by work to develop and assess interventions and secure funding. However, it is unclear who is responsible for this work, its scope, how it will be managed and governed and who will fund it. The council would expect to be fully engaged this work.</li> <li>o. Para 3.1.18 – Confirm that the council will be engaged on any monitoring scheme updates or reviews.</li> </ul>
3.2	<p>Criteria for intervention</p> <ul style="list-style-type: none"> <li>a. General – This section needs to more clearly define the highway network performance criteria / indicators proposed and the level of change required that triggers the need for intervention. These need to be SMART (Specific, Measurable, Achievable, Realistic and Timely).</li> <li>b. General – As noted above its should also not just consider network performance criteria and impacts in relation to general traffic but also for local buses and non-motorised users to ensure mitigation measures also focus on sustainable development and travel as required in the National Policy Statement for National Networks (Department for Transport, 2014).</li> <li>c. Para 3.2.3/Plate 3.1 - Describes a process – it does not clearly define the criteria. See general comment above.</li> </ul>

Relevant Section in the Wider Network Impacts Management and Monitoring Plan	The Council's Comments
	<ul style="list-style-type: none"> <li>d. Para 3.2.4 states “Monitoring reports will be reviewed to identify whether there is a <b>significant level of change in traffic conditions</b>”. This is vague. See general comment above about need to define more specific criteria and the level of change required to trigger interventions.</li> <li>e. Para 3.2.5 - It is unclear how HE will consider and determine impact of other influencing factors identified – more detail required.</li> <li>f. Para 3.2.6 proportionate assessment and appraisal process – More definition is required as to what this means and presumably depend on the scale/cost of potential interventions being considered.</li> <li>g. Para 3.2.6 investigate suitability for intervention – It vague here and throughout this document how this process and work be managed, governed and funded. Further clarity is required.</li> <li>h. General – Also the document should recognise that a range of interventions to mitigate impacts may be required across a local area rather than just at specific junctions. Interventions a mixed package of major physical highway infrastructure, smaller scale traffic management measures, physical measures to mitigate impacts (and promote) on buses, walking and cycling and demand management and softer demand management / area wide travel planning</li> <li>i. Para 3.2.6 - Local Authorities will be critical stakeholders and may need to lead on work to identify, assess and deliver interventions. This should be recognised.</li> <li>j. General – the document suggests that timeline for the identification of any areas requiring intervention and work to select suitable interventions will only begin after all the periods of traffic monitoring have been completed (data collection commitment is to one year after opening and five years post-opening). Further work would then be needed to undertake scheme appraisal, develop business case. As a result the potential delivery timescale for mitigation measures would be at least 5 – 10 years following opening. There should be a recognition of the potential need to fast-track scheme development work and/or delivery of early interventions earlier in the monitoring period (after year one monitoring).</li> </ul>
3.3 Potential funding options	<ul style="list-style-type: none"> <li>a. General - This section makes it clear that there is no funding security to deliver interventions required to mitigate post construction impacts.</li> <li>b. General - There is also no commitment to funding the work that will be required to identify, assess and develop business cases etc for interventions.</li> <li>c. General - This provides no certainty or reassurance to LAs and the community that LTC's impacts on the wider network will be mitigated/addressed.</li> </ul>

## 2.2 Summary and Recommendations

### Summary and Recommendations

- 2.2.1 A range of comments on the Wider Network Impacts Management and Monitoring Plan are provided above which should be responded to or address in an updated version of the document.
- 2.2.2 The key issues identified and recommendations are:
- i. This plan only relates to the monitoring of operational impacts on the wider network once the project has opened. A monitoring plan for the construction period is required and should be set out separately or as part of the oTMPfc.
  - ii. It is unclear clear if and how this plan links to wider project monitoring and evaluation and the scope of that work includes assessing impacts on travel demand/behaviour, impacts on economy, air quality, noise, carbon. Further clarity is required in the plan.
  - iii. The plan suggests that the need for interventions on the wider road network to mitigate LTC impacts is not yet determined. The council believes there is evidence of the need for interventions at a number of locations (including those at 2.2).
  - iv. It is critical the scope of this plan also considers impacts on the local bus network (particularly impacts on journey times and journey time reliability) and non-motorised users e.g. pedestrians and cyclists. This should be included in the plan.
  - v. The plan suggests that monitoring work will identify areas for intervention and describes in general terms work required to develop and assess interventions and secure funding. However, it portrays a vague and open-ended process with little funding security for interventions at the end of the process. It is unclear who is responsible for this work, its scope, how and who it will be managed and governed by and who will fund it. Further clarity and definition of this process is needed.
  - vi. The plan at present does not clearly define the highway network performance criteria / indicators proposed and the level of change required that triggers the need for intervention. Further work to define these is required.
  - vii. The plan provides no commitment to mitigate wider impacts on the road network post construction. Nor does it indicate there is secured mechanism in place to fund the delivery of required interventions. There is also no commitment to funding the work that will be required to identify, assess, and develop business cases etc for interventions.
  - viii. The document suggests that timeline for the identification of any areas requiring intervention and work to select suitable interventions will only begin after all the periods of traffic monitoring have been completed (data collection commitment is to one year after opening and five years post-opening). There should be a recognition of the potential need to fast-track scheme development work and/or delivery of early interventions earlier in the monitoring period (after year one monitoring).





## Lower Thames Crossing

Traffic Modelling Issues

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Traffic Modelling Issues

**Doc Ref:** Revision B

**Date:** October 2021

	Name	Position	Signature	Date
<b>Prepared by:</b>	Dave Cope	Associate Transport Planner	DC	02/09/2021
<b>Reviewed by:</b>	Sarah Matthews	Director	SM	02/09/2021
<b>Approved by:</b>	Sarah Matthews	Director	SM	02/09/2021
<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	DC	SM	SM
B	05/10/2021	Updated with comments and issued to National Highways	DC	SM	SM

This report has been prepared by Stantec UK Limited ('Stantec') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which Stantec was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). Stantec accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report

## Summary of Issues

1.1.1 This is a live document based on correspondence with HE and, as such, any updates have been highlighted in red.

Issue Title and Description	What have we asked for?	Why have we asked for it?	Information Issued to HE to facilitate	What have we received or has been confirmed by HE	What we want HE to do now
<p><b>General Modelling</b></p> <p>The 'Operational Update' within the latest Non Statutory Consultation indicates some significant changes in Traffic flows in Thurrock (around Orsett Cock, A1013 and Chadwell St Mary). No explanation is provided.</p> <p>The recent consultation does not include an updated Model Forecasting Report.</p> <p>The cordon models relating to the 2029 opening year issued during the Non-statutory consultation period, therefore insufficient time to analyse and inform our response to the consultation documents.</p> <p>The base model is 2016.</p>	<p>Forecasting Model Report</p> <p>Additional time to review the modelling relating to a 2029 opening year and respond. [Consultation was not extended]</p>	<p>To check the evidence that HE is using in its consultation.</p> <p>It is not certain whether the consultation is based on the model runs with the two additional lanes at the A13 junction to Orsett Cock.</p>	-	<p><b>2029 cordon models of the DCO scheme received on 26<sup>th</sup> July 2021.</b> Note: Inadequate time has been given to analyse the models and include in our response to the Non-Statutory Consultation.</p>	<p>HE to provide Forecasting Model Report.</p>

Issue Title and Description	What have we asked for?	Why have we asked for it?	Information Issued to HE to facilitate	What have we received or has been confirmed by HE	What we want HE to do now
<p><b>Issue Ref 10.1 Local Road Validation within the Lower Thames Area Model (LTAM)</b></p> <p>Results from the LTAM is the only evidence used to test the scheme, with regards to both strategic and local road network.</p> <p>The LTAM has not been validated against observed traffic levels on the local roads, with the exception of the A13 and A126.</p>	<p>Awaiting HE's review and comment/justification.</p> <p>Meeting dates for the programme of works/meetings outlined in column 5.</p>	<p>Local road junctions and links might perform worse than modelled. Higher traffic flows could lead to adverse environmental impacts such as: severance, fear and intimidation, safety, noise and air quality.</p> <p>Junctions of concern include:</p> <ol style="list-style-type: none"> <li>A13 interchange</li> <li>ASDA roundabout (or Tilbury Link Road)</li> <li>Orsett Cock</li> <li>The Manorway</li> <li>Daneholes Roundabout</li> <li>Marshfoot Junction priority junction</li> </ol>	<p>We have expressed our concerns related local road validation at Supplementary Consultation (April 2020), Design Refinement Consultation (July 2020), and raised again with analysis in October 2020 and a further submission in March 2021, but a response has yet to be provided by HE.</p> <p>See Report titled "Junction Assessment and Mitigation Analysis" October 2020 for detailed review.</p> <p>In the absence of local network validation by National Highways, the Council has carried out a review comparing observed traffic surveys against DCO modelled traffic flows. This shows that, in general, traffic</p>	<p><b>Not Willing</b></p> <p>HE confirmed that they will not be revalidating the model, but a methodology could be agreed to adjust the findings and use to test the key junctions of concern.</p> <p><b>Outstanding, but Confirmed Approach</b></p> <p>HE is proposing a programme of work covering: (1) 2016 baseline model, (2) identify areas of concern in forecasts, (3) mitigation/interventions, and (4) Local Plan Options.</p> <p>The Council has grave concerns that this engagement cannot be completed in advance of the DCO submission and would not provide HE the time to make any changes to the scheme.</p>	<p>Although revalidation of LTAM would have been a better basis for local network, it is accepted that, at this late stage, this is unlikely be carried out.</p> <p>Local validated models (e.g., micro-simulation models) should be created to test the local network at key locations.</p>

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			<p>flows are low on local roads in the base year model and in particular, low on: the A1013; links near Orsett Cock; on A1014 The Manorway; and A1089 near ASDA.</p> <p>Traffic survey data was issued to HE on 25/01/21.</p> <p>Further clarification is provided in our response dated 7th July 2021 to HE's Technical Notes issued 18th June 2021.</p>		
<p><b>Issue Ref 10.16 Induced traffic</b></p> <p>The scheme appears to give rise to significant levels of induced traffic, based on the increase in traffic shown across the River. This could result severance, impact on pedestrian and cyclist delay and amenity, fear and intimidation, accidents and</p>	HE to provide a technical note on the impacts of induced traffic.	Concerns relate to the lack of environmental mitigation related to this level of traffic increase in the borough.	<p>Supplementary Consultation, 2020</p> <p>We have requested information on understand whether the changes in traffic in Thurrock is wider reassignment (which cannot be seen in the</p>	<p><b>Received</b></p> <p>A technical note was provided on the 19<sup>th</sup> August 2021 which outlined the overall statistics resulting from induced trips.</p> <p>Which shows that 758 trips in the AM and 924 trips, 0.13% of total trips in both</p>	The effects of the induced traffic on the environment – vehicle emissions (tailpipe and particulates), severance, impact on pedestrian and cyclist

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<p>safety, as well as pollution, dust and dirt.</p> <p>These aspects do not appear to have been fully assessed for both the construction and operational stages of the scheme</p> <p>The modelling shows there is an increase of nearly 14% total travel distance (pcu.kms/hr) with LTC, resulting in 9 to 11% increase in CO2 emissions and 6 to 7% increase in NOx.</p>			cordon model) or variable demand.	<p>peak periods are associated with induced traffic.</p> <p>VDM information for the DCO2 model was received on the 1<sup>st</sup> October 2021.</p>	<p>delay and amenity, fear and intimidation, accidents and safety, as well as pollution, dust and dirt.</p>
<p><b>Issue Ref 10.2/10.3 Rat-running on the local roads</b></p> <p>HE is assuming that traffic travelling from south of river going to Greys and the Port of Tilbury would go via Dartford Crossing, but with the LTC, traffic is forecasted to use more local and unsuitable routes which provide quicker journey times.</p> <p>These routes (A1013, B149 and Brentwood Road for</p>	Awaiting HE's Review of Reports/Notes issued.	<p>Concerns relate to:</p> <ol style="list-style-type: none"> <li>Practical implementation and operation of enforcement and hence the realism of these modelling adjustments.</li> <li>Suitability of the Orsett Cock&gt;A1013&gt;Daneholes&gt;Marshfoot Route</li> <li>lack of mitigation on the route</li> </ol>	<p>Details provided in:</p> <ol style="list-style-type: none"> <li>Review of the Effects of the LTC within Thurrock: DCO Cordon Model Review", October 2020</li> <li>Thurrock Cordon Model Construction Modelling Review", May 2021</li> </ol> <p>Further clarification is provided in our response dated 7<sup>th</sup> July 2021 to</p>	<p><b>Outstanding, Confirmed Approach</b></p> <p>HE has confirmed that the scheme is reliant on the Orsett Cock&gt;A1013&gt;Daneholes&gt;Marshfoot Route.</p> <p>No mitigation offered.</p> <p>Updated DCO2 journey times for the 2044, AM/IP/PM with and without LTC model runs, similar to</p>	<p>HE to appraise the suitability of routes and proposal for the necessary mitigation.</p> <p>HE to show TC an effective scheme for banning HGVs, as the</p>

Issue Title and Description	What have we asked for?	Why have we asked for it?	Information Issued to HE to facilitate	What have we received or has been confirmed by HE	What we want HE to do now
<p>example) are not designed to carry strategic traffic, including LGVs and HGVs, to the Port of Tilbury or to accommodate an increase in traffic.</p> <p>No mitigation is proposed. HE has included theoretical banned links within the model, restricting port traffic in the most recent modelling, which affects routes via Chadwell St Mary, however, concerns still remain about the methodology applied, as the current enforcement is not effective.</p> <p>There will also be no access from the A128 to the A1089 and journey times are quicker from M25 north to Grays and the Port of Tilbury via the LTC and local roads as well as from south of the river to these same locations via the LTC.</p>		<ul style="list-style-type: none"> <li>d. Capacity at Orsett Cock and future proofing for Local Plan Growth and Freeports (or commitment to Tilbury Link Road – for future public transport services to operate over the River Thames and east-west across LTC to link Thurrock Growth areas)</li> <li>e. Treetops school and safe routes to school, noise and AQ</li> <li>f. New signal junction at Treetops</li> <li>g. Orsett Heath Academy and safe routes to school, noise and AQ</li> <li>h. Residential frontages and related severance, noise and AQ impacts</li> <li>i. capacity and safety impact on the</li> </ul>	HE's Technical Notes issued 18th June 2021.	those provided for the indicative Local Plan model runs, were received on 1 <sup>st</sup> October 2020.	existing enforcement scheme is not effective.



Issue Title and Description	What have we asked for?	Why have we asked for it?	Information Issued to HE to facilitate	What have we received or has been confirmed by HE	What we want HE to do now
		<p>Marshfoot priority junction (this is a safety hotspot)</p> <p>j. delays to bus services (and need for bus priority at Daneholes and perhaps at other locations along the route)</p> <p>k. Use of the route through Chadwell St Mary and need for more effective HGV enforcement, residential frontages and related severance, noise and AQ impacts</p>			
<p><b>Issue Ref 10.14 Micro-Simulation Modelling</b></p> <p>Given the concerns with the LTAM, the Council believes that the strategic model is not the correct tool to test local junction operation, particularly at:</p> <ul style="list-style-type: none"> <li>a. A13 interchange</li> <li>b. ASDA roundabout</li> <li>c. Orsett Cock</li> <li>d. The Manorway</li> </ul>	<p>We have requested to review any Micro-simulation modelling carried out.</p> <p>Additionally, documentation regarding the validation of the base models and forecast model development</p>	<p>No confidence that these junctions will operate efficiently.</p> <p>Design changes are being made using models which has not being made available.</p> <p>Junctions of concern include:</p> <ul style="list-style-type: none"> <li>a. A13 interchange</li> </ul>	<p>Report titled "Junction Assessment and Mitigation Analysis" October 2020 for detailed review provides suggested mitigation.</p>	<p><b>Outstanding</b></p> <p>HE has not been willing to share the microsimulation modelling.</p> <p>HE is proposing a programme of work covering: (1) 2016 baseline model, (2) identify areas of concern in forecasts, (3) mitigation/interventions, and</p>	<p>Local validated models (e.g. micro-simulation models) should be created to test the local network at key locations.</p>

Issue Title and Description	What have we asked for?	Why have we asked for it?	Information Issued to HE to facilitate	What have we received or has been confirmed by HE	What we want HE to do now
e. Daneholes Roundabout f. Marshfoot Junction priority junction	should also be provided.  Meeting dates for the programme of works/meetings outlined in column 5.	b. ASDA roundabout (or Tilbury Link Road) c. Orsett Cock d. The Manorway e. Daneholes Roundabout f. Marshfoot Junction priority junction  Detailed junction assessments indicate that there could also be blocking back on to the A13 from Orsett Cock and Manorway Junctions.		(4) Local Plan Options. The Council has grave concerns that this engagement cannot be completed in advance of the DCO submission and would not provide HE the time to make any changes to the scheme.	
<b>Issue Ref 10.20 Orsett Village and Rectory Road</b>  Adjustments have been made to zone loading points in the latest DCO model with the addition of new network has been included without any model validation undertaken, thus resulting local changes in traffic routing and rat running, specifically noted at Rectory Road, Orsett.	Awaiting justification for the network and zone changes from the validated base model.	There is concern over an increase in traffic through Orsett village.  Traffic levels and delays at Orsett Cock could be underestimated as a result.	The Council has considered possible mitigation for Orsett Cock, see report titled "Junction Assessment and Mitigation Analysis" October 2020 for detailed review.  Traffic management is also necessary in Orsett.	<b>Outstanding</b>  HE has not provided any information/ justification.	Although revalidation of LTAM would have been a better basis for local network, it is accepted that, at this late stage, this is unlikely be carried out.

Issue Title and Description	What have we asked for?	Why have we asked for it?	Information Issued to HE to facilitate	What have we received or has been confirmed by HE	What we want HE to do now
					Local validated models (e.g., micro-simulation models) should be created to test the local network at Orsett Village, Rectory Road, Baker Street and Orsett Cock area.
<p><b>Issue Ref 10.5 Allowing for growth in Thurrock</b></p> <p>TEMPro growth factors do not reflect the emerging growth locations. No testing of future growth scenarios has been carried out to assess the implications of significant planned local growth associated with the Local Plan and Freeport proposals on</p>	<p>HE to undertake additional sensitivity tests based on provided \$Include Saturn network files and associated matrices for the indicative Local Plan development sites.</p> <p>Meeting dates for the programme of</p>	<p>Concerns that the additional capacity provided by the A13 widening scheme will be absorbed by LTC. The scheme results in pressure on the network at the locations most needed for future growth.</p> <p>Council currently remains concerned that</p>	<p>The Council has provided indicative Local Plan growth assumptions and a set of network options (as \$Include files) to enable HE to make an assessment of alternative scheme options for the provision of connections to growth areas within Thurrock, and connectivity to A13</p>	<p><b>Outstanding, but Confirmed</b></p> <p>HE has confirmed that these runs will not inform the DCO. HE is proposing to delay these due to recognition that TC is concerned about the validation of the model and their suggestion to start at the beginning. HE's proposed programme covers: (1) 2016 baseline</p>	<p>Completion of the modelling of local growth scenarios supplied to HE, and completion of HE's proposed programme to review the strategic</p>

Issue Title and Description	What have we asked for?	Why have we asked for it?	Information Issued to HE to facilitate	What have we received or has been confirmed by HE	What we want HE to do now
<p>LTC, and how LTC can best support sustainable growth.</p> <p>London Resort methodology sensitivity test - It is unlikely to reasonable to expect the Port traffic and other traffic in the area to change time of travel, mode of travel or destination. The Tilbury area relies on a single access via the A1089. Businesses may not be able to operate successfully with their operations displaced to outside of the peak periods, particularly freight movements.</p>	works/meetings outlined in column 5.	the proposals do not recognise the importance of local sustainable growth and connectivity. The scheme does not offer resilience in terms of future people movements (highway, public transport or active travel). The LTC causes severance related to TC emerging growth, particularly growth at East Tilbury and connections between Stanford area and Basildon and Thurrock.	<p>and the ports at Tilbury. This was submitted to HE within these reports:</p> <ul style="list-style-type: none"> <li>a. 'HE Modelling Specification Note' (PART 1), March 2020 – includes indicative Local Plan growth assumptions and network files</li> <li>b. 'PART 2 Indicative Local Plan (ILP) Model Runs', June 2021 – includes network files compatible with the latest LTAM model</li> </ul> <p>HE has updated the 2027 opening year model to a 2029 opening year model, with forecast year models being updated by 2 years too (e.g. 2042 to 2044, etc.). The Council agreed that the models runs should be carried out on the updated model, as it was confirmed that this would</p>	<p>model, (2) identify areas of concern in forecasts, (3) mitigation/interventions, and (4) Local Plan Options.</p> <p>The Council has grave concerns that this engagement cannot be completed in advance of the DCO submission and would not provide HE the time to make any changes to the scheme.</p> <p>HE has obtained authority to share London Resort cordon models and have added to the list. Date TBC.</p>	<p>modelling of the scheme.</p> <p>London Resort cordon models.</p>

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			<p>be available very shortly. More recently additional lanes have been added to the A13 interchange to Orsett Cock. The model has been updated again to accommodate this change.</p> <p>Initial experimental runs have been carried out within the out-of-date model (i.e. 2042 forecast year model), so that as soon as the updated model was ready any issues had been identified for running in the latest model (i.e. for forecast year 2044 in model titled DCO 2). These runs have not been provided yet.</p> <p>Further clarification regarding the London Resort modelling is provided in our response dated 7<sup>th</sup> July 2021 to HE's Technical Notes issued 18th June 2021.</p>		

Issue Title and Description	What have we asked for?	Why have we asked for it?	Information Issued to HE to facilitate	What have we received or has been confirmed by HE	What we want HE to do now
<p><b>Issue Ref 10.11 Testing of Scheme Alternatives</b></p> <p>HE has not presented results of any scheme option testing for example different <b>A13 junction configurations</b> or with a <b>Tilbury Link Road</b> and there is insufficient detail to understand the impacts (on the local road networks as well as residents, businesses, open countryside and designated environmental areas) and to determine mitigation.</p>	<p>Concerns were raised in response to the Statutory Consultation in 2018 where we requested option testing and further modelling detail to understand the scheme impacts on the local networks</p> <p>This has continued to be raised at Supplementary Consultation (April 2020), Design Refinement Consultation (July 2020), and raised again with analysis in October 2020 and a further submission in March 2021.</p>	<p>There continue to be no evidence on alternative scheme configurations to check whether the current scheme is preferred.</p> <p>Transport Appraisal Guidance has not been followed.</p>	<p>\$Include files (based upon the 2029 model) have been issued to HE to undertake some option testing as set out in 'PART 3 A13 and TLR Option Model Runs', 1st July 2021. This includes network files for options (without the networks related to the indicative Local Plan growth) compatible with the latest LTAM model.</p>	<p>'Design Construction and Operation' Report 2018 provides insufficient evidence, such as modelling results, to allow stakeholders to take a view about the performance of alternative options at that stage.</p> <p>No modelling results have been provided on the changes to the scheme configuration from 2018 and options considered to identify the DCO scheme.</p> <p>'Lower Thames Crossing A13 Junction Design Approach May 2021' focuses more on the reasoning behind the linkages provided through the iterations of the interchange at A13, rather than the reasoning for the interchange and the comparative review of alternative interchanges.</p> <p><b>Not Willing</b></p>	<p>Option testing for at least the options set out in 'PART 3 A13 and TLR Option Model Runs', 1st July 2021.</p>

Issue Title and Description	What have we asked for?	Why have we asked for it?	Information Issued to HE to facilitate	What have we received or has been confirmed by HE	What we want HE to do now
				Having originally agreed to undertake model runs outlined in 'PART 3 A13 and TLR Option Model Runs', 1st July 2021, it is no longer understood that HE is no longer willing to undertake this work.	
<b>Issue Ref 10.7 Sensitivity testing and uncertainty (Scheme Resilience)</b>  The LTC design is for a life span of some 100 years, yet there is no modelling for resilience to future change, such as travel trends, mode shift and emerging technologies.	HE to provide information regarding sensitivity testing of the scheme in terms of future mobility.			<b>Outstanding, but Confirmed</b>  HE will not be carrying out any sensitivity testing. HE has confirmed that they cannot apply the DfT's Uncertainty Toolkit without the updated TEMPro.	Sensitivity testing of a range of possible or plausible futures.
<b>Issue Ref 10.10 Construction modelling and analysis</b>  A number of links see increases in traffic and no mitigation proposed. The recent consultation did not include the latest construction modelling, so the report impacts do not match the modelling we have access to.	HE to provide revised construction modelling which uses an alternative matrix (dataset D).  Details of proposed mitigation throughout the construction period.	No understanding of the construction assumptions that have been made in the latest consultation and whether they are achievable and can be managed/enforced.  No evidence available to understand the latest	See Thurrock Cordon Model Construction Modelling Review", May 2021. Further clarification is provided in our response dated 7 <sup>th</sup> July 2021 to HE's Technical Notes issued 18th June 2021.	<b>Outstanding</b>  Construction modelling has apparently been updated and will be issued mid-August (originally planned for W/C 9 <sup>th</sup> August). Note: It is now September, and this has not yet been provided.	Local models (e.g., validated micro-simulation models) should be used to test construction traffic and

Issue Title and Description	What have we asked for?	Why have we asked for it?	Information Issued to HE to facilitate	What have we received or has been confirmed by HE	What we want HE to do now
		<p>construction (modelling) impacts.</p> <p>LTAM not a suitable tool for local road network testing and for detailed traffic management schemes.</p>		DCO2 construction modelling was received on the 1 <sup>st</sup> October 2021.	traffic management.
<p><b>Issue Ref 10.17 Incidents</b></p> <p>The effects of incidents on the LTC have not been tested and presented to the Council, to understand the local roads that will be at risk of impact.</p> <p>Mitigation measures should be incorporated to minimise the use of unsuitable routes.</p>		<p>Concerns relate to the lack of mitigation as part of the local impacts resulting from the LTC.</p>	<p>Supplementary Consultation, 2020.</p> <p>Further consideration of impacts of incidents and mitigation of these.</p>	<p><b>Not Willing</b></p> <p>HE has confirmed that any modelling would not be realistic, as traffic radio and Sat Navs will stop people travelling.</p>	<p>An assessment of the routes at greatest risk of use as a result of incidents on the LTC and consideration of mitigation.</p>





## Lower Thames Crossing

### Review of Outline Site Waste Management Plan

On behalf of **Thurrock Council**



## Document Control Sheet

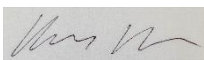
**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of Outline Site Waste Management Plan

**Doc Ref:** Revision B

**Date:** October 2021

	Name	Position	Signature	Date
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<b>Approved by:</b>	Chris Stratford	Consents and DCO Senior Consultant	CS	08/09/2021
<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	CH	DB	CS
B	05/10/2021	Issued to National Highways	-	CB	CB

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the draft outline Site Waste Management Plan (oSWMP).
- 1.1.2 This document sets out the Council's comments on the draft oSWMP and if there are any suitable opportunities to improve this infrastructure.
- 1.1.3 The document follows the same structure as our other reports and respond only to the sections relating to the north of the river.
- 1.1.4 In their response to the initial application the Planning Inspectorate identified two specific issues with the oSWMP:
  - i. 13 - There are elements of a generic site waste hierarchy within the documentation but limited information as to the actual implications of the waste handling implications on a 23km long site with twin bore tunnels under the Thames. Even where a high percentage of materials is to be retained for reuse (in accordance with the hierarchy) would still require extensive movements of large tonnage to / from excavation to stockpile / sorting / treatment locations before reuse over an extended area and which may or may not need to cross the river between the respective tunnel portals.
  - ii. 14 - The ES considers a 'road only' outlier position but this is not a substitute for an actual handling strategy which would need to consider multi-modal approach (see TfL considerations) and this all deferred for later consideration which means that mitigations have not been fully assessed. This interfaces with the Transport Assessment and Navigation elements identified above for the construction period particularly as it sets the 'significance' threshold as being at 1% of landfill capacity in the whole of England rather within the study area. There are a number of unfinished paragraphs and missing cross reference in the Materials and Waste section of the ES which make it difficult to read fully.
- 1.1.5 The Council has significant concerns over the oSWMP as prepared and does not consider that the document contains sufficient information to address the shortcomings of point 13 within the PINS response.
- 1.1.6 The Council's concerns relate to the sufficiency of the level of detail provided for the scale, duration and waste generation potential of the proposed project. At a high level we believe that the oSWMP fails to appropriately set out the following key points:
  - i. The nature of the targets for reuse, recycling and recovery are not defined.
  - ii. The waste arisings are not described with regards to their phasing.
  - iii. There is no evidence that the storage capacities within the compounds have been assessed for sufficiency.
  - iv. There is no explanation of how waste transport, storage and treatment locations will be assessed for compliance with any relevant regulatory requirements (Waste Carriers License, Exemptions, Environmental Permits, etc).

- v. There are no proposed actions identified to ensure that the materials identified are captured for reuse, recycling or recovery and in particular no detail on how material will be separately collected.
  - vi. There is no identified structure for monitoring, recording and reporting on the wastes generated by the scheme.
- 1.1.7 Point 14 is considered in more detail within our response to the outline Material Handling Plan (oMHP) however the concerns regarding the capacity within the surrounding waste infrastructure is not addressed within either the oMHP, oSWMP or Excavated Materials Assessment (EMA).
- 1.1.8 It is essential that the Council pursues an acceptable outcome for the draft oSWMP prior to submission of the DCOv2 to protect its interests with regards to the management of wastes within and through the Borough. Once consent for the project is granted, the Council will have very limited opportunity to influence the detailed strategies which will have a significant impact on the Borough for the many years of construction.

## 2 Review of Outline Site Waste Management Plan

### 2.1 Comments

Table 2.1: The Council's Comments on the Outline Site Waste Management Plan

Relevant Section in the Outline Site Waste Management Plan		The Council's Comments on the initial draft of the Outline Site Waste Management Plan	Thurrock Council's Comments on the Consultation Draft (July 2021) of the Outline Site Waste Management Plan
<b>Chapter 1: Executive Summary</b>			
All		It is difficult to consider this OSWMP properly without receipt of the Outline Materials Handling Plan (OMHP), which will cover the flow of waste and materials within the scheme and externally, due to be issued in draft in May 2021 for our review.	Whilst the OMHP has been received the lack of detail provided within the 2 documents on the phasing of the works means that it is still not possible to understand the impacts and implications of the works.
<b>Chapter 2: Introduction</b>			
2.3	Scope	<p>a. Requirement 4 requires approval by the SoS following consultation with Local Planning Authorities (LPA) and Natural England. LPAs therefore have a limited measure of control over the detail of all EMPs (2<sup>nd</sup> Iteration), despite potentially being impacted. The Council requires approval rights over matters affecting its area through this Requirement 4.</p> <p>b. Does prior to commencement of construction works include enabling works?</p>	These points do not appear to have been addressed within the consultation draft of the oSWMP.
2.5	Materials Handling Plan	a. Whilst this OSWMP is intended to be secured by the DCO, although no details of how are yet available,	oMHP has now been provided and will from now on be considered within the specific feedback document but, as

Relevant Section in the Outline Site Waste Management Plan		The Council's Comments on the initial draft of the Outline Site Waste Management Plan	Thurrock Council's Comments on the Consultation Draft (July 2021) of the Outline Site Waste Management Plan
		<p>there is no similar indication for the OMHP, which must be similarly legally secured in the DCO.</p> <p>b. Multi-modal transport split on waste movements will need to part of the Navigational Risk Assessment in terms of additional barges and risk.</p>	<p>set out within the Councils comments, the oMHP lacks sufficient detail.</p>
2.6	Project Commitments and Targets	<p>a. Comments on the REAC have been made by the Council for 'Materials (MW001 - MW004, MW007, MW009, MW010, MW011, MW012 and MW014). LTC's responses to these points need to be reviewed to determine their acceptability and then where agreement is reached amend both the REAC and OSWMP. Further clarity is required over specific targets that each Principal Contractor (PC) would be required to adhere to, e.g. MW001 and MW011.</p> <p>b. As stated and agreed within 'Response to Thurrock Council comments on Environmental Matter (REAC), MW010 points 2 and 3 (which are now b and c in the OSWMP) have not been incorporated within the OSWMP.</p> <p><i>"(2) the Contractor would provide suitable containers for reception and temporary storage of waste on site and shall arrange for waste to be periodically collected and transported to a suitably licensed facility for treatment or disposal (3) the Contractor would be responsible for obtaining any relevant</i></p>	<p>a. The REAC commitments within tables 2.3 and 2.5 do not reflect the drafting from within the Code of Construction Practice document.</p> <p>b. Table 2.2 presents estimated waste reduction savings from specific actions without evidence for their calculation (before &amp; after waste arisings, reference to before &amp; after layouts, material types, etc.).</p> <p>c. The section makes no comment on what regulatory measure will be implemented for the management/storage of wastes within the compounds nor how the wastes will be monitored to ensure that the waste within the Compounds does not breach any restrictions.</p>



Relevant Section in the Outline Site Waste Management Plan		The Council's Comments on the initial draft of the Outline Site Waste Management Plan	Thurrock Council's Comments on the Consultation Draft (July 2021) of the Outline Site Waste Management Plan
		<p><i>permits/exemptions for on-site management of waste.</i></p> <p>c. The following commitments are missing from Table 5 in the OSWMP. MW001, MW002, MW003, MW004, MW006, MW007, MW008, MW009.</p> <p><b>d. MW015 is a new commitment which has not been reviewed by the Council.</b></p>	
2.7	Roles and Responsibilities	The role of local authorities also needs to be set out. Also, the role of HE, Designer, Principal Contractor and Contractor/Subcontractors in liaising with local authorities needs to be specified.	This remains unaddressed.
2.8	Waste Management Contractors		The document does not set out how the Duty of Care responsibilities for ensuring that waste carriers and destinations comply with the relevant regulatory requirements will be monitored and reviewed.
2.9	Waste Forecast		Whilst allocated to a high level separation of the works the waste forecasts do not consider phasing. For a project of this size and duration the Council would expect to see phased arisings.
	Tables 2.6	a. It is not clear if the Principal Contractor would be required to comply with or better the 'anticipated management' targets or if the targets are only for guidance – clarify in the text.	a. It is still not clear whether the figures within the table are <i>de minimis</i> targets or aspirational targets. Targets are only derived from generic estimations not from an assessment of suitability for recovery based on any

Relevant Section in the Outline Site Waste Management Plan	The Council's Comments on the initial draft of the Outline Site Waste Management Plan	Thurrock Council's Comments on the Consultation Draft (July 2021) of the Outline Site Waste Management Plan
		<p>b. Confirmation is required that there is sufficient capacity at off-site recycling sites and landfill sites to take the large amounts of waste that will come from LTC development.</p> <p>studies undertaken or proposed actions to ensure that material is captured in a format suitable for processing at the relevant sites.</p> <p>b. Evidence for the identification of the waste arisings is not provided and the timing of the waste production through the phasing of the works is not identified therefore it is still not possible to confirm whether there is sufficient capacity within the identified sites. Some of the necessary information is located within the EMA, other parts within the OMHP but neither contain all of the necessary information, they cannot be linked together in a meaningful manner and without a phasing program the suitability of the surrounding facilities cannot be considered.</p> <p>c. Without detail on how the material will be separated and stored on site it is not clear whether the material taken off site will be suitable for immediate recycling or will require processing, this will determine the relevant facilities that are required for the management of the waste.</p> <p>d. The use of Inert. Is this meant to be excavated material classified as Non-hazardous and with WAC testing shown to acceptable at a landfill receiving inert waste? Or is this Natural Ground and 'contaminated' is Made Ground.</p> <p>e. Has a preliminary waste classification exercise been undertaken? What proportion of the 11.73M m3 of excavated material is Made Ground and might be</p>

Relevant Section in the Outline Site Waste Management Plan		The Council's Comments on the initial draft of the Outline Site Waste Management Plan	Thurrock Council's Comments on the Consultation Draft (July 2021) of the Outline Site Waste Management Plan
			<p>classed as Hazardous waste if designated for off-site disposal?</p> <p>f. To understand how much of the excavated material might be designated as waste in terms of being surplus an understanding of the quantities required for the construction is needed plus how suitable for re-use been defined (criteria) and any limiting factors such as where asbestos containing soil cannot be re-used.</p>
	Table 2.7		<p>a. It is still not clear whether the figures within the table are <i>de minimis</i> targets or aspirational targets. Targets are only derived from generic estimations not from an assessment of suitability for recovery based on any studies undertaken or proposed actions to ensure that material is captured in a format suitable for processing at the relevant sites.</p> <p>b. The waste arisings are not identified either spatially or temporally.</p>
	Section 2.10		The reporting structure only sets out how the overall performance figures will be presented not how data will be recorded, managed and compiled prior to presenting. The data to be recorded is not indicated so it is not clear how HE will comply with their Duty of Care responsibilities.
	Table 7	This refers to 'project targets' but is not clear what these are and if they are % within the study area or nationally; and, how these targets are derived from the REAC commitments is needed – clarity is required in the text.	Not addressed.

Relevant Section in the Outline Site Waste Management Plan		The Council's Comments on the initial draft of the Outline Site Waste Management Plan	Thurrock Council's Comments on the Consultation Draft (July 2021) of the Outline Site Waste Management Plan
<b>Annexes</b>			
A.1- A.5		Annex A.1 – A.5 need to be completed, when will this be undertaken?	Tables have still not been populated.

## 2.2 Summary and Recommendations

### Summary

- 2.2.1 The document builds upon the initial review of the oSWMP that Thurrock sent to HE on 22<sup>nd</sup> March 2021. Within this review of the consultation draft of the oSWMP we have identified whether we consider the original comments have been addressed appropriately and also identified where additional concerns have been raised.
- 2.2.2 As drafted the oSWMP is insufficiently developed to allow the Council to draw a considered opinion on the management of the wastes from the project. The full range of waste arisings are not broken down by source nor by the timing of their production, the scheme targets are unclear in their nature and do not appear to have been developed against any project specific basis. There is no information on how wastes will be managed to ensure that the project attains the standards/targets that have been set nor complies with regulatory requirements.

### Recommendations

- 2.2.3 The oSWMP needs to be developed to ensure that:
- i. The basis for the targets within it are clear
  - ii. The basis for the estimations of waste arisings are provided
  - iii. The waste arisings are considered both with regard to where and when they will arise
  - iv. The approach to managing the wastes is clear to demonstrate regulatory compliance can be maintained
  - v. The approach to the recording, compiling and reporting of the wastes managed is appropriate for the scale of the project
  - vi. The potential offtake locations for the wastes to be taken from the site are clearly identified and their potential to manage the waste arising over time is identified
- 2.2.4 The oSWMP, oMHP, MMP and EMA are complementary documents, however they need to be able to be considered as standalone documents and all relevant evidence and information should be presented within each document.
- 2.2.5 It is essential that the Council pursues an acceptable outcome for the draft oSWMP prior to submission of the DCOv2 to protect its interests with regards to the management of wastes within and through the Borough. Once consent for the project is granted, the Council will have very limited opportunity to influence the detailed strategies which will have a significant impact on the Borough for the many years of construction.



## Lower Thames Crossing

Review of Outline Materials Handling Plan

On behalf of **Thurrock Council**



## Document Control Sheet

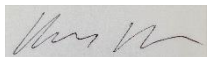

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of Outline Materials Handling Plan

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**Date:** October 2021

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<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issue to Thurrock Council	CH	CC	AN
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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the draft Outline Materials Handling Plan (oMHP).
- 1.1.2 This document sets out the Council's comments on the proposed oMHP and gives an indication as to where there are any suitable opportunities to improve that document and the constituent plan.
- 1.1.3 This document follows a similar structure to other reviews carried out by the Council and references within this document align to the referencing within the oMHP. The document responds only to the sections relating to the north of the river.
- 1.1.4 The National Policy Statement for National Networks (NPS NN) has as one of its objectives the vision to provide a national *"Networks which support the delivery of environmental goals and the move to a low carbon economy"* (NPS NN page 9). This in turn should help towards achieving the legally binding Carbon Budgets (NPS NN references at 5.16). Whilst the NPS NN has its basis in the development of National Network initiatives it is appropriate that that covers the construction period and therefore the objective to engrain environmentally sound construction processes including the movement of materials by low polluting transport modes. This drive for reduced environmental impact during the construction period is further emphasised at paragraph 4.29 on NPS NN, where *"good design"* will be *"efficient in the use of natural resource and energy used in their construction"*. That aspiration around *"use"* should include the efficient handling of materials and how the options for types of material have influenced the environmental sustainability of the design and the associated construction processes and effects on Air Quality. There must be a golden thread running through the design and construction of LTC that shows how the environmental effects have been minimised, including using environmentally sound handling of materials. Paragraph 5.19 refers to the mitigation of effects, including the use of materials and that this will be a material factor in the Secretary of States decisions on the proposals currently being put forward.
- 1.1.5 The Council has many concerns with the oMHP as currently prepared, and these are outlined within this report and captured in the following headlines.
- i. The proposals for materials handling are not evidenced with data;
  - ii. Only excavated material and bulk aggregates are considered within the document, leaving all other material as "smaller less frequent deliveries" (oMHP para 1.1.3 refers) and for the main works contractors to manage;
  - iii. HE dismisses, almost entirely, the use of marine and rail for the movement of materials, plant and equipment, without adequate evidence;
  - iv. The assertions and "principles" are not supported by commitments from HE and targets for the contractors to achieve and are left to the Contractor to research and adopt with no consequences if the principles are not observed; and
  - v. With the apparent sparsity of soundness, it is difficult for the Council to conclude a properly reasoned response to the oMHP.
- 1.1.6 In their response to the DCOv1 application the Planning Inspectorate identified nine issues which impact upon the oMHP:

- i. The ES identifies that certain materials for the construction of the tunnels could be delivered by river transport via an existing jetty at Goshem's Farm. ES Chapter 2 paragraph 2.5.26 states that in the worst case scenario, the jetty would be refurbished and used for the transport of materials. The ES has not consistently stated how this jetty would be used and there are discrepancies within the ES as to the number of barges per day which would deliver this material, as well as some discrepancy in respect of the current usage of the jetty, which only has planning permission up until 2022. For examples of discrepancies, see para 11 and 12 below.
- ii. The application is not clear as to whether there would be an increase in barge / other river vessel movements as a result of the construction of the Proposed Development and the extent to which this might impact on the navigation of the River Thames.
- iii. Within the Scoping Opinion, the Secretary of State, Marine Management Organisation and the Port of London Authority (PLA) requested that if the River Thames is to be used to transport material, a navigation assessment should be included within the ES in order to determine the effects of these movements (in terms of both commercial and recreational craft). Statutory consultation responses from Port of Tilbury and the PLA reflect their concern at the lack of a navigation assessment.
- iv. No navigation assessment has been undertaken. Appendix 4.1 states that a navigation assessment is not required as "it is assumed that barge movements would be limited to two a day", but this contradicts other information as set out above. ES Chapter 13 in respect of a navigational assessment is noted, however this lacks detail and relates to marine and riparian assets only.
- v. Whilst no new jetty is to be constructed, as would have been the case at the time of the Scoping Opinion, the existing one would be refurbished, used and decommissioned and navigational impacts on the River Thames remain an issue which could be assessed and presented as part of the application.
- vi. For example, ES Chapter 13 paragraph 13.6.19 suggests that there would be two barges per day during the construction period; one per tide cycle. This is also identified in ES Chapter 9 paragraph 9.6.86 and in ES Appendix 4.1. However, ES Chapter 9 paragraph 9.6.192 suggests there would be up to six barge deliveries per day, and ES Appendix 2.1 paragraph 1.3.15 suggests there would be three barges per high tide and that high tide occurs twice a day. The HRA Stage 1 Screening Report (Document 6.5) also states up to six barges per day. In addition, the ES Air Quality Chapter Paragraph 5.6.7 states that a maximum of 1,800 movements (six barges per day) would occur and this quantity of movements is also stated in Appendix 2.1. In respect of the current use of the jetty, ES Chapter 13 paragraph 13.4.26 suggests three barges in any given 12- hour shift whereas paragraph 13.6.19 suggests three barge movements per day.
- vii. ES Chapter 9 paragraph 9.6.188 states that "Marine construction would require plant, barges, workboats and safety boats to be brought to site with movement occurring within the Order Limits during the construction phase. Once the marine works are complete and the East Tilbury jetty is operational, there would be continued marine traffic from vessels transporting materials and equipment."
- viii. There are elements of a generic site waste hierarchy within the documentation but limited information as to the actual implications of the waste handling implications on a 23km long site with twin bore tunnels under the Thames. Even where a high percentage of materials is to be retained for reuse (in accordance with the hierarchy) would still require extensive movements of large tonnage to / from excavation to stockpile / sorting / treatment locations before reuse over an extended area and which may or may not need to cross the river between the respective tunnel portals.

- ix. The ES considers a 'road only' outlier position but this is not a substitute for an actual handling strategy which would need to consider multi-modal approach (see TfL considerations), and this all deferred for later consideration which means that mitigations have not been fully assessed. This interfaces with the Transport Assessment and Navigation elements identified above for the construction period particularly as it sets the 'significance' threshold as being at 1% of landfill capacity in the whole of England rather within the study area. There are a number of unfinished paragraphs and missing cross reference in the Materials and Waste section of the ES which make it difficult to read fully.
- 1.1.7 The concerns identified within this review indicate that HE has failed to address these issues and that the oMHP lacks specific information and evidence, referring to overarching themes and aspirations without identifying how these will be achieved.
- 1.1.8 It is essential that the Council pursues an acceptable outcome for the oMHP prior to submission of the DCOv2 to protect its interests with regards to the movement and handling of material, plant and equipment within and through the Borough. Once consent for the project is granted, the Council will have very limited opportunity to influence the detailed strategies which will have a significant impact on the Borough for the many years of construction.
- 1.1.9 The oMHP must form a robust framework in which stretching targets around the movement and handling of materials which will bring about reductions in the environmental impacts of moving and handling that material. The targets should be minima which the contractors adopt within their developed Materials Handling Plans and that they are incentivised to exceed those targets. The oMHP must include a defined management and governance process which encompasses the mechanisms by which the contractors' compliance is judged and measured. It must set out the corrective action procedures and timescales and the way in which dispute is resolved. The day-to-day governance process must be a system operated by the Client and the affected Local Authorities in collaboration with the Contractor. Only unresolved disputes should be referred to the Secretary of State. The draft oMHP does not include such governance and management mechanisms.

## 2 Review of draft oMHP

### 2.1 General Comments

- 2.1.1 The oMHP document is not sufficiently developed to allow for a detailed examination of the impacts of the proposed works to be made. The information provided is at a high level and lacks sufficient detail, justification, evidence and specific commitments towards actions to allow detailed comments to be provided.
- 2.1.2 The overarching issues within the document submitted are:
- i. The actions to be taken are caveated and commitment is deferred until later stages of the project. The document should set out actions that will be implemented and make commitments to achieve these. The oMHP refers at paragraph 2.3.1 to the draft CoCP and “commitments to secure mitigation”. The Council has concerns with the robustness of that document and the absence of Client organisation commitments and so that lack of robustness is translated into the oMHP.
  - ii. There is a lack of detail regarding the timing/phasing of the works therefore it is not possible to identify the timing or quantum of vehicle movements to identify the potential impacts – this is despite the construction period apparently being divided into 11 phases. Information on the number of vehicle movements inbound and outbound should be provided on at least an averaged monthly projection to give an indication as to the impacts on the local road network. This would give the Council a yardstick to judge against and the main works contractors a measure of the quantum of movements anticipated to allow them to profile and programme their works to accord with the DCO commitments.
  - iii. There is a lack of detail on the sites receiving the wastes to provide confidence that they are suitably licensed or have sufficient capacity to receive the wastes generated at the point that they are produced. It is not possible to align the facilities identified within Appendix B with those considered within the Excavated Materials Assessment (EMA) making it impossible to assess the surrounding capacities and potential for the management of the material arising from the site.
  - iv. There is a lack of evidence to support the assumptions relating to the availability of storage for wastes within compounds prior to dispatch to the receiving sites or the stockpiling of imported and manufactured materials. HE has proposed that a segment factory will be created within the Order Limits. Aside from the footprint of that factory it will need component materials which will need to be stockpiled and there will need to be space to store segments for use. These areas can be substantive and should be indicated within the draft plans to give confidence that the worksites are sufficiently sized. Furthermore, there will be the need for batched concrete for various operations, including tunnel secondary lining (if required). If these are to be batched on site then the footprint for that batcher and associated infrastructure should be estimated and indicated within the plans for the oMHP. The final details of these proposal would be developed by the main works contractors and their sub-contractors but indications of their space and access requirements cannot be excluded entirely from the oMHP.
  - v. There is no information to identify whether the material produced from the excavation is suitable for re-use within the site, whether the material will be generated at an appropriate time or identification of the locations where material will be produced from compared to where it will be used. This lack of information makes it impossible to assess whether the assumptions on the on-site reuse rates, and hence off-site transport requirements, are realistic.

- vi. There is no evidence to support the assessment of the number of on-line vehicle movements identified and the assessment appears to use different vehicle capacities for the waste removed from the North of the river to that removed from the South of the river with no justification for this difference. The Council cannot agree to the oMHP when there is no clarity as to the number and type of movements associated with materials handling and there is no cap on movements from the project in total or from any defined compound, including the newly introduced Utilities compounds.
- vii. We note that the Excavated Material Assessment report provided states that waste classification of the soils (as either Hazardous or Non-Hazardous) will be undertaken once ground investigation is complete. Without this fundamental assessment we do not understand the origin of the quantities used in this oMHP.
- viii. The proximity principle is referred to (paragraph 2.4.10 of the oMHP) as an admirable aspiration, however, how would that aspiration be achieved and incentivised in contract? This appears to be a toothless intention.
- ix. The use of marine or rail transport to minimise road mileage is discussed through the document but is largely discounted due to reported challenges. Whilst HE alludes to the juxtaposition of the Port of Tilbury and Tilbury2 as “opportunities to use” (paragraph 5.2.8), there appears no comprehensively reasoned evidence as to why there can be so little commitment or opportunity to move material, plant and equipment by rail or marine. That paragraph states that a marine based strategy “*should consider traffic impacts on the Asda roundabout*”. The Council has repeatedly raised the potential for the project to negatively affect the Asda roundabout and has been told that the worst case scenario modelling of the construction period has no negative impacts on that junction. Whilst the Council continues to refute that claim, the text at paragraph 5.2.8 appears to suggest that a strategy that would take many lorry movements off the A1089 network by having shorter movements between the Port and Compounds 5 and 5a, but introduce a percentage of movements northbound on A1089 to other compounds, could have a deleterious effect on the operation of the Asda roundabout. HE must explain which the impact is and whether that is deemed to be Significant.
- x. The dismissal of the jetties within or close to the Order Limits for the use by the Project is not supported by evidence but it is stated that other projects would restrict their use for the project. Firstly, if the jetties lie close to or within the Order Limits they would be difficult for other projects to use for transshipment and lighterage; and secondly the projects referenced (i.e. Tideway and Silvertown Tunnel – referenced at paragraph 7.2.23 of the oMHP) would be either complete or nearing completion by the time of the construction of the LTC project. Section 7 of the oMHP refers to the intention for the contractors to consider multi-modal and last mile strategies but there is no incentivisation to the contractors to use non-road transport. They are free to consider and then dismiss these modes without any consequences. The application of incentivised targets which are encapsulated within a much improved and subsequently consented oMHP, which will in turn be law and a contractual requirement through a Requirement of the DCO, will form part of the governance and management of sound Materials Handling Plans. Those Materials Handling Plans will drive reduced environmental impacts and move towards mitigating the construction impacts.
- xi. Paragraphs 2.5.1 and 2.5.4 refers to the use of Vehicle holding points and the oTMPfC. The preliminary version of that document does not currently propose holding points at the site entrances. This shows the absence of consistency across the related documents and does not give the Council confidence that these plans will derive a robust and positive strategy for materials, plant and equipment management and the associated vehicle management. If consented these documents would not provide a clear framework within which the contractors would work and would not achieve the environmental protections to which HE and the project should aspire.

- xii. Supply chain data analysis is included within this document, whilst this may be more appropriate within the oTMPfc, the initiative again does not provide a restrictive environment within which contractors would work. Data could be collected but there is no performance target to achieve and no compliance regime.
  - xiii. Medebridge Road is reported as a key access route and this is in line with the wider project proposals, however, HE makes no proposal to cap its use or to mitigate the effects on the surrounding road environment at High Road and the North Stifford interchange. The impact on this network must be set out and mitigated.
  - xiv. The detail provided regarding the final mile strategy for the project is lacking in detail and specific proposals to mitigate the impacts of the final mile deliveries to the works site.
  - xv. The oMHP needs to set out how it aligns with the Navigational Risk Assessment (NRA) for the project. The Council has not yet provided a view on the draft NRA and so reserves opinion on that matter.
- 2.1.3 Without addressing these substantive issues, it is not possible to make a thorough assessment of the appropriateness of the materials handling strategy. Without a phased assessment of the material movements then it is not possible to draw an informed conclusion on the potential for alternative transportation approaches which should be revisited or the impacts on the local road network of the movement of materials, equipment and plant. That assessment must include the analysis of the quantum of other materials not currently included such as cement and concrete, surfacing materials, bulk steel and additives, rails and ducts, topsoil etc. The governance, management, compliance and corrective action strategy that accompanies must be detailed within the oMHP as that will provide the basis on which the contractors' performances will be judged and enforced.
- 2.1.4 In addition to the issues identified above there appear to be referencing inconsistencies/omissions within the document that need to be reviewed and rectified.
- 2.1.5 The plate images are not clear within the document, plates should be provided at an appropriate scale.

## 2.2 Summary and Recommendations

### Summary

- 2.2.1 It is considered that the document presents insufficient evidence to demonstrate that a robust assessment has been undertaken to define the quantum and timing of the various materials and that appropriate approaches to the handling have been identified. As the oMHP is currently presented it is considered that there is insufficient confidence in the viability of the proposed plan or the mechanisms for governance and management of the procedures.
- 2.2.2 There is no incentive to contractors to adopt environmentally sound processes and no requirement for corrective action where targets are not met.

### Recommendations

- 2.2.3 We recommend that the revised document provides:
- i. Detail of the calculations and assessments which are stated to have been undertaken.
  - ii. Clarity on the types and quantities of arisings (Topsoil, Made Ground identified as chemically and physically suitable for re-use, Natural Ground that meets the requirement and are excluded from the scope of the WFD, Made Ground identified as not chemically and/or physically suitable for re-use, Natural Ground identified as not suitable for re-use).
  - iii. Criteria used to decide suitability for re-use.
  - iv. For each type of spoil arising requiring off-site disposal provide a waste classification assessment to determine whether Hazardous or Non Hazardous. A second stage of acceptance assessment (informed by WAC testing as appropriate) to inform the identification of likely destination landfill – which should consider the location and timing of generation.
  - v. Clarity on the destination compound /location of stockpiles and duration.
  - vi. Clarity on the phased vehicles movements associated with the works.
  - vii. Information on the receiving sites identified to provide comfort that they will be able to accept the wastes generated at the point that they are exported from the site.
  - viii. An assessment of the potential for alternative transportation measures to be incorporated based upon the phased movement of materials identified within the oMHP and those that are not as yet considered within the oMHP.
  - ix. Definitive commitments to targets and aspirations and to incentivise contractors to reduce road mileage and materials mileage and to comply with stretching targets.
  - x. The governance processes and dispute mechanisms.





## Appendix C

Code of Construction Practice

(electronic pg. 2)

Register of Environmental Actions

(electronic pg. 36)

## Appendix D

DCO Schedule 2 & Explanatory Note June 2021

(electronic pg. 97)

## Appendix E

Design Principles

(electronic pg. 109)

## Appendix F

Outline Landscape and Ecology Management Plan

(electronic pg. 146)

## Appendix G

Ward Impact Summaries North of the River Part 1 and 2

(electronic pg. 158)



## Lower Thames Crossing

Review of the Code of Construction Practice (CoCP)

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of the Code of Construction Practice (CoCP)

**Doc Ref:** Revision B

**Date:** October 2021

	Name	Position	Signature	Date
<b>Prepared by:</b>	Various	Various	-	August 2021
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<b>Approved by:</b>	Chris Stratford	Consents and DCO Senior Consultant	CS	September 2021
<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	-	CS	CS
B	05/10/2021	Issued to National Highways	-	CB	CB

This report has been prepared by Stantec UK Limited ('Stantec') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which Stantec was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). Stantec accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the updated version of the Code of Construction Practice (CoCP) within the Community Impact Consultation.
- 1.1.2 This document provides a complete set of comments covering all matters related to the CoCP.
- 1.1.3 The document responds only to the sections relating to the north of the river within Thurrock.
- 1.1.4 The key general points of concern are set out below, although the summary of key technical matters are set out in the 'Summary and Recommendations' below:
- i. Further detailed comments, for many of actions and/or recommendations, are set out in the Main Report and Appendices of the Council's Consultation Response, and in previous Council comments on the 'Worker Accommodation Summary' and DCOv1 Order documents.
  - ii. Some issues/ concerns have not yet been resolved by HE, for example, there are unresolved concerns about the safety of the interchange between LTC and the Orsett Cock Roundabout. In the majority of instances, further details/information are awaited. These matters cannot, by definition, have been subject to consultation – let alone effective consultation.
  - iii. There are a number of items not part of this consultation or still missing from the CoCP, for example, HE should provide a Low Emissions Strategy for Construction, which is only partly done in the Carbon and Energy Plan within the DCOv1. As a result we do not consider that an effective consultation has been carried out.
  - iv. Some measures are still awaited in DCOv2, regarding the impact of mitigation measures, such as earth works and planting, upon the historic character of the landscape.
  - v. Most Hatch measures are not secured and still under discussion.
  - vi. Many principles, approaches to construction, control measures, standards and targets are still unconfirmed by HE. These matters cannot, by definition, have been subject to consultation – let alone effective consultation.
  - vii. The Council does not accept that the Secretary of State should be the determining body for the discharge of the DCO Requirement relating to the Environmental Management Plans.
  - viii. Some actions are only covered in REAC and not included in the CoCP.
- 1.1.5 The highlighting shown in the table below is intended to demonstrate the severity of the issue identified, with amber being 'serious' and red being 'critical and essential'.

## 2 Review of the Code of Construction Practice (CoCP)

### 2.1 Comments

Table 2.1: The Council's Comments on the Code of Construction Practice (CoCP)

Source	Reference	Summary of Comments	Action and/or Recommendation
Statutory Consultation		<p>There is insufficient information about roads to be used to transport construction materials.</p> <p>The Council notes the indication of the access routes within the Outline Traffic Management Plan for Construction and has stated that these need to be mandated to the contractors and their suppliers and then enforced through a vehicle tracking mechanism. The Council continues to have concerns that sufficient protections will be in place for unsuitable and undesignated routes - such as Station Road, the A1013/B149 corridor, Brentwood Road and Muckingford Road corridors. This needs to be considered further by HE within the reviews of the oTMPfc.</p>	Further detailed comments are set out in Appendix A (1)
Statutory Consultation		<p>Further engagement is required on the following:</p> <ul style="list-style-type: none"> <li>Construction compounds - layout and activities</li> <li>Construction logistics and off site facilities (e.g. segment factory)</li> <li>Materials abstraction and waste management strategy</li> <li>Borrow pits and haul road strategy</li> <li>Temporary works (e.g. road diversions)</li> <li>On and off-site enabling works</li> <li>Special requirements (including use of jetty and delivery of abnormal loads)</li> </ul>	This is ongoing and is set out in Appendix H.

Source	Reference	Summary of Comments	Action and/or Recommendation
		Further detail is gradually emerging. Responses on points of detail are being sought as part of the response to the oTMPfc and the Outline Materials Handling Plan.	
Statutory Consultation		CEMP and CTMP should be supplied for early consideration by Thurrock.  The Council is providing a response to the updated oTMPfc, provided as part of the July 2021 consultation.	Set out in Appendix A (1)
Meeting - 12/06/19		Design of the Orsett Heath Academy and its relationship with LTC (permanent works and construction effects).  Impact on surrounding road network. A specific issue has been identified with traffic on the A10189/A13 that requires some temporary diversion arrangements. There is a need to transport materials from range of port arrival points to the proposed construction compound, involving considerable HGV and other movements. LTC are currently reviewing options for a suitable route that may impact on this area. Potential solutions are at very early stages of consideration with a number of obstacles to overcome before a final design can be completed.  The design of the Council's proposed roundabout has been shared with LTC and it is expected to be accommodated - designs to be checked.	This has not been resolved yet and the Council has provided the updated proposed now traffic light-controlled junction (not Roundabout) details for Orsett Heath and Treetops schools.
Meeting - 19/02/19		LTC should provide a Low Emissions Strategy for Construction, and this needs to be consulted upon.  Partly done in the Carbon & Emission Report, further work and explanations necessary in CI Consultation.	Still awaited (no effective consultation in the absence of such a document)
Meeting - 06/02/19		Generally, site compounds are located to the west of the LTC alignment. Primary and secondary access to each compound and the likely HGV numbers would form part of the draft TA, which would include traffic management.	Comments are set out in Appendices A (1) and H



Source	Reference	Summary of Comments	Action and/or Recommendation
		<p>proposals. There was a possible construction access from Stifford Clays using the Veolia access to Mardyke that needs further exploration and discussion. The broad construction contract areas north of the river would be Tunnel works and highway works with a possible boundary at Tilbury Loop. Further and ongoing discussions were necessary to refine the LTC proposals.</p> <p>HE has provided no information relating to the specific access points for each compound, including the need for mitigation at the Medebridge Road/High Road junction; or the interface of the main access to Compound 5/5a with the A1089 corridor. The indicative corridors have been shown within the oTMPfc but the impacts must be evidenced by refined Transport Planning modelling. The physical protections to other non-access routes (signs or enforceable controls) also need to be set out by HE. These matters have not therefore been subject to consultation.</p>	
Comments on Design Narrative		<p>Whilst it is important that the design of signage and lighting of the LTC is given considerable thought, it is also important that equal consideration is given to the impact of temporary signage within Thurrock during construction as well as additional signage and lighting required upon the existing road network upon completion.</p> <p>We await sight of further provisions within the CoCP/REAC.</p>	Refer to comments in the REAC (Appendix C (2))
Comments on Design Narrative		<p>The impact of mitigation measures such as earthworks and planting upon the historic character of the landscape must be considered.</p> <p>We await the revised chapters on Cultural Heritage and Landscape &amp; Visual for review. These must be subject to consultation when they have been updated.</p>	Still awaited in DCOv2
Comments on Design Narrative		Reference is made to a large compound south of North Ockendon. However, more detail on where this is proposed, and its extent is required.	Comments are within Appendix H

Source	Reference	Summary of Comments	Action and/or Recommendation
Statutory Consultation		<p>A segment factory located in the Borough at the North tunnel portal is considered, which produces tunnel segments onsite to enable easy access to the tunnel. The supply of materials for this plant is not specifically discussed but the mode used for transporting these materials may have significant effects, particularly on the road network.</p> <p>Further details are awaited of proposals for materials deliveries for the proposed segment factory.</p> <p>The Council notes that marine movement for some materials is referenced in the oMHP, however, no commitments are made and so there can be no certainty that significant numbers of HGVs will not be required on the network to supply material to the segment factory (and other bulk materials).</p> <p>The Council continues to have significant reservations on the appropriateness and accuracy of the Transport Planning modelling (and has not been provided with the modelling data and validation, such that it is unable to comment on this matter in detail which, self-evidently, is a major defect in the consultation exercise) and so does not fully comment on the effects of the proposed "worst case" scenarios. It is not yet possible to fully understand these scenarios, and to provide an effective consultation response in respect of them.</p>	Further details are awaited (in the absence of which no effective consultation has been carried out).
Statutory Consultation		<p>There is insufficient detail on the likely haul routes and the impacts on local roads. The proposed Construction Travel Management Plan (CTMP) would need to be extremely robust to support the management of the haul roads and marine movements and would need to include, amongst other things, a Navigational Risk Assessment on marine movements. The Council expects to be consulted on all of these matters.</p> <p>Comments on oFCTMP submitted to LTC and discussions ongoing.</p>	Further details are within Appendix H and Appendix A (1)

Source	Reference	Summary of Comments	Action and/or Recommendation
		The Council continues to seek improvements in the robustness of the oTMPfc, including the measures to protect local routes.	
Statutory Consultation and Supplementary Consultation		<p>Marine transport is considered in outline for the delivery of the Tunnel Boring Machine (TBM) and materials delivery and removal although it is not clear what these are and the benefits. It is unclear whether the current jetty arrangement indicated is sufficiently sized for these tasks. It extends the existing East Tilbury jetty used for land raising. Highways England to confirm corridors or method for the import of the TBMs. Consideration should be given to river/marine transport.</p> <p>Comments on oMHP underway.</p> <p>The Council has several misgivings about the current oMHP. A separate response is being prepared. It is noted that HE is reviewing opportunities to import the TBMs by marine transport, but this is not committed to and the oMHP clearly rules out the use of existing jetties.</p>	Comments are included in Appendices A (1), B (2) and H
Statutory Consultation		<p>If materials are to be transported by road, it would be positive to see consideration of the option to deliver the majority of materials to the LTC A13 main compound, which can then be distributed along the line of the works. This would reduce the potential impact upon the local road network.</p> <p>This needs confirming within the oMHP.</p> <p>The Council notes HE's aspirations to move material along the line of the LTC works, however, there is no detail as to when this will be established and when local roads will no longer be used for materials' movement. HE is not clear as to what material will be delivered or removed from which compound and when. This detail needs to be provided for consultation.</p>	Comments are included in Appendices A (1), B (2) and H
Statutory Consultation		The full extent of proposed diversions, the phasing of the works, identification of any development land that may be sterilised, and any mitigation measures is required to fully understand the extent of the disruption to the Borough and the	Comments are set out in Appendix A (1)

Source	Reference	Summary of Comments	Action and/or Recommendation
		<p>likely significant environmental effects. This would include any temporary or permanent utility works required to service the tunnelling and construction activities.</p> <p>There are ongoing discussions on the TA, the oFCTMP and construction traffic modelling.</p>	
Statutory Consultation		<p>The absence of marine logistics for import or export of materials, plant and equipment results in the assumption that all of these will be transported by road – with many hundreds of thousands of movements during the lifetime of the project using strategic and local roads. Fundamentally and significantly the prospect of the tunnel drives occurring from the north (paragraph 2.18.7) would result in all tunnel bore excavated material being transported away along the A1089 corridor to the A13 and the tunnel construction material imported along the same corridors.</p> <p>Further discussions required to determine proposals within the oMHP.</p> <p>The OMHP notes the aspiration to deposit Excavated Material along the trace of the route, however, there is no commitment from HE as to the quantity and hence no commitment as to what will be exported from site and by what means.</p>	Comments are included in Appendices A (1), B (2) and H
Statutory Consultation		<p>Transportation of other suitable materials, plant and equipment: The analysis does not include the movements of other suitable materials, plant and equipment. The likely supply for the TBM and components would be from Continental Europe (often France or Germany). No evidence is given of exploring opportunities to bring this equipment and components in by sea/river and transshipping locally. The Port of Tilbury seems to have been largely ignored.</p> <p>Further discussions required to determine proposals within the oMHP.</p>	Comments are included in Appendices A (1), B (2) and H

Source	Reference	Summary of Comments	Action and/or Recommendation
		This matter needs to be addressed in the oTMPfc and OMHP with a corresponding commitment from HE for its contractors to adopt. Further consultation will be needed when these matters are identified and considered.	
Statutory Consultation		<p>Transportation by rail: The use of rail has been dismissed for excavated material but there is no mention about using rail for other materials, plant or equipment, including TBM components. The PEIR does not appear to specify the focus of the rail study or substantiate how the conclusions were drawn. For example, it is not made clear if existing facilities such as the EWS depot to the east of Gravesend reviewed, or if the opportunity to introduce new rail interchange from the Tilbury Loop was considered. The dismissal of the use of rail (either north or south of the river) does nothing to mitigate the impact of transporting everything by road. This continues to assume substantial impacts on the road network in and around Thurrock.</p> <p>Currently discounted but being reviewed with oMHP.</p> <p>This matter needs to be addressed in the oTMPfc and OMHP with a corresponding commitment from HE for its contractors to adopt.</p>	Comments are included in Appendices A (1), B (2) and H
Statutory Consultation		<p>Innovative mitigation of traffic movement effects: The use of highly sustainable and innovative methods of movements should be appraised – seeking the use of clean fuel and hybrid vehicles within the supply chain and on site– potentially within the worksite boundary and minimising the use of diesel road vehicles and non-road based plant. Aside from the reference to a Construction Traffic Management Plan (CTMP) there appears no evidence that the potentially significant adverse transport impact on Thurrock during the construction period would be mitigated through the use of low polluting vehicles and plant. The opportunity is missed to use the project to drive up standards in road logistics and modernising plant.</p> <p>CoCP measures to be reviewed in CI Consultation version.</p>	Comments are included in Appendices G and H and in specific comments on the REAC (Appendix C (2))

Source	Reference	Summary of Comments	Action and/or Recommendation
		This matter needs to be addressed in the oTMPfc and OMHP with a corresponding commitment from HE for its contractors to adopt.	
Supplementary Consultation		<p>The information presented by Highways England to date does not give adequate detail of its strategy for, and potential effects of, accommodating and managing the construction workforce.</p> <p>This is a key issue and further work is required to convince the Council of the lack of impacts of both the worker accommodation on-site and in the wider community. Consultation on the emerging strategy needs to take place.</p>	Refer to Appendix H and previous comments on the 'Worker Accommodation Summary' document.
Supplementary Consultation		<p>The potential impacts from the proposed construction traffic routes will need to be assessed within the EIA and HEqIA along with the long-term effects of road closures and how this impacts access to hospitals. The CoCP and CEMP must include a method of determining the deleterious effects that the extraordinary traffic would cause along the Council's routes to the contractor's compounds and works. That method must set out how those impacts would be identified, recorded and mitigated by Highways England.</p> <p>Still under discussion.</p> <p>The effects of the construction period on the local travel network are not proposed to be assessed through the ES by HE with the exclusion of a Transport Chapter from the ES. This is not acceptable. The oTMPfc also needs to be strengthened to allow monitoring, management and enforcement of the contractors' operations.</p>	Comments are included in Appendices A (1), B (2) and H
Supplementary Consultation		<p>Highways England should provide further details of the initiative on the possible use of interim consolidation of materials, plant and equipment for distribution within the works areas.</p> <p>Still under review within the oMHP.</p>	Comments are included in Appendices A (1), B (2) and H

Source	Reference	Summary of Comments	Action and/or Recommendation
Supplementary Consultation		<p>The proposals for Medebridge Road as a haul route should be confirmed with the Council such that future use could be made of it once the scheme has been constructed.</p> <p>No further information has been received on this matter.</p>	Still under discussion as Hatch Measure L8
Supplementary Consultation		<p>Highways England to confirm environmental principles its contractors will adopt during the construction phases, such as emissions and safety standards that are required to be adopted by the contractors and their sub-contractors, hauliers and supply chain.</p> <p>To be checked in CI Consultation version of CoCP.</p> <p>Refinements to the CoCP are continuing with HE. A separate response to the draft has been prepared by the Council.</p>	Still awaited in CoCP (except Section 2 which is too general) or REAC (needs specific measures adding)
Supplementary Consultation		<p>Highways England to confirm innovative approaches to construction and material used. i.e. the use of emerging automation, off-site construction techniques; on site batching and reuse of materials; environmentally sound materials and time saving methods.</p> <p>LTC to confirm where information can be found and reviewed.</p> <p>No evidence of this has been provide by HE.</p>	<p>Still awaited and should be part of CoCP and REAC.</p> <p>Paragraph 2.2.5 is noted with the commitment to CEEQUAL (also covered in Hatch Measure M14.</p>
Supplementary Consultation		<p>Highways England to confirm methods to reduce impacts on local communities from extended working hours and method. And confirm location and impact from workforce accommodation.</p> <p>Matter being discussed under Hatch Measure M5.</p>	Still under discussion with HE as part of Hatch Measure M5 – additional wording under review but not yet included within Consultation version of CoCP

Source	Reference	Summary of Comments	Action and/or Recommendation
Design Refinement Consultation		<p>HGV Management Strategy not seen. A management strategy for redirecting over-height vehicles from the LTC prior to the tunnel and also for managing the increased propensity for HGV drivers to seek locations for breaks or over-night stays must be set out by Highways England with suitable mitigation provided. Further consultation will be required on this strategy.</p> <p>Awaiting information from LTC.</p> <p>These matters are covered by other response.</p>	Not part of consultation and still awaited within technical discussions/engagement
CoCP		As outlined in Thurrock's response to the CoCP (date) "There is a lack of detail regarding how Highways England intends to protect existing infrastructure and buildings during the construction of the LTC." HE's response states that this will be accommodated in the DCOv2, but does not state how.	This is not included in Consultation version and must be covered in next version.
CoCP		<p>The Council notes the updated CoCP (and REAC). The draft CoCP has indications of initiatives and strengthens the requirements that the Contractors are to meet and observe. The Council continues to be concerned that it is only seen as a marginal stakeholder with some reference in the determination of management plans rather than being viewed as an important Authority with legal Traffic Management and Environmental management duties for the affected local network and population.</p> <p>No progress has been made on this matter.</p>	Covered in Appendix D and in further overall comments on the DCOv1 Order responses.
CoCP		The draft CoCP states that Highways England is committed to avoid, reduce or compensate for, as far as reasonably practicable, the adverse impact of the construction and operational activities upon people, businesses and the natural and historic environment. To date there has been a lack of information regarding the mitigation proposals and the Council is unaware of the compensation scheme Highways England are incorporating into their design. The Council understands that the Tilbury Power DCO, a private sector scheme in the vicinity	Under discussion as part of Hatch Measures CLS 6 and 7.



Source	Reference	Summary of Comments	Action and/or Recommendation
		of the LTC, is providing biodiversity net gain as good practice and would expect similar measures to be committed for LTC.	
CoCP		The project description provides no commitment to achieving biodiversity net gain which has been Highways England's position throughout. In Table 3.4 of the Design Principles there is reference to biodiversity net gain and achieving seeking to achieve a 20% gain. It is understood that Highways England has its own commitment to achieve 20% as discussed at the Issues Log meeting (1 October 2020) Clarification required from Highways England.	This will be dealt with in the Council's comments on the DCOv1 Order responses.
CoCP		Thurrock Council has unresolved concerns about the safety of the interchange between LTC and the Orsett Cock Roundabout. Safety concerns are also still expressed in relation to the impacts on operation of the Manorway interchange. These matters are being considered as part of the SoCG Issue Log and need to take account of the operational phase of LTC but also the impacts during the construction phase of temporary changes to the operation of the interchanges.  No progress has been made on this matter.	Still under discussion and not yet resolved.
CoCP	Paragraph 1.4.2 and 1.4.3	The Council requires that the CoCP sets out how sub-contractors, including hauliers and the supply chain, to the main contractors are controlled through the CoCP. The reference to sub-contractors, at Paragraph 2.2.3, and specialist consultants are noted.  No progress has been made on this matter.	Still an outstanding matter, as no detail of control measures or penalties for non-compliance have been set out in the CoCP.
CoCP	Paragraph 2.1.2	Paragraph 2.1.2 states that "Schedule 2 (Part 2) of the DCO identifies the formal procedure for all consents, agreements and approvals which may be required in relation to requirements under Schedule 2 (Part 1) of the DCO. The individual requirements identify where consultation is required in advance of submission to the Secretary of State.	

Source	Reference	Summary of Comments	Action and/or Recommendation
		<p>The Council does not accept that the Secretary of State should be the determining body for the discharge of the DCO Requirement relating to the Environmental Management Plans. The Council is concerned that this approach will remove decision-making powers to review and approve mitigation measures as a result of local impacts as part of the construction phase.</p> <p>No progress has been made on this matter.</p>	
CoCP	Paragraph 2.3.1	<p>It would be helpful if a breakdown was provided of how the EMP2s will be split. At present it states that the EMPs will be specific to location and scope of works, but no further information is provided. Furthermore, the Council would wish to be the determining authority to discharge the EMP2 and EMP3 as part of Requirement 4 in the draft DCO. Consultation with relevant stakeholders should also be undertaken as part of the process.</p> <p>No progress has been made on this matter.</p>	<p>Not yet resolved.</p> <p>This will also be dealt with in the Council's comments on the DCOv1 Order responses.</p>
CoCP		<p>The EMPs will need to include contractor roles and responsibilities, together with appropriate control measures, training and briefing procedures, risk assessments, stakeholder engagement and monitoring systems to be employed during planning and constructing the works for all relevant topic areas.</p>	Not yet resolved.
CoCP	Paragraphs 2.3.2 and 2.3.3	<p>The full suite of documents/management plans expected to be produced and implemented during the construction phase should be provided in Paragraphs 2.3.2 and 2.3.3 for example Air Quality Management Plan, Travel Plan, Overarching Written Scheme of Investigation (OWSI) and Scour and Accretion Monitoring and Mitigation Plan.</p>	Not yet resolved.
CoCP		<p>The frequency and review periods should be set against a particular date, such as quarterly following the date of final approval of the EMP2. The EMPs should be reviewed and revised as necessary in consultation with, and agreed by, the relevant local authorities.</p>	Not yet resolved.

Source	Reference	Summary of Comments	Action and/or Recommendation
		No progress has been made on this matter.	
CoCP	Paragraph 2.5.2	The CoCP at Table 2 sets out the roles and responsibilities, therefore it is confusing that at Paragraph 2.5.2 the CoCP states that roles and responsibilities of key personnel will be detailed in the EMP2 during the construction phase and the EMP3s during the operational phase. Highways England have stated that the roles and responsibilities are anticipated but that the contractors may choose to vary the approach and therefore they will be detailed in the EMPs. The Council requires the Contractor to take the roles as indicated as a minimum and maintain at least that minimum throughout the construction period.	This is unresolved and further comments on the lack of adequate provision, targets or commitments for Skills and Employment matters are set out in the Main Report of the Council's Consultation Response.
CoCP	Section 4	The CoCP fails to identify the need for a community liaison or stakeholder engagement officer. This is a vital role to ensure construction procedures and potential impacts are communicated effectively to the community. Highways England state that a community liaison or stakeholder engagement officer is not specifically referenced in the CoCP however in section 4 it is made clear that there will be a community liaison team and therefore it would be comprised of community liaison officers.	This is not yet fully resolved as it should be listed in Table 4.1. Although the provision of a team is noted in paragraph 5.2.2.
CoCP		The role of land and marine based logistics management and traffic management are not clearly defined.  No progress has been made on this matter.	Not yet resolved.
CoCP	Paragraph 4.3.4	The terms of the Joint Operations Forum should be set out in the CoCP. If Thurrock Council are to rely on a loose form of engagement via final consultations on completed draft of management plans it would be essential to also know when engagement will be provided through outcomes from the JOF.	Agreed, although it is noted that Phasing Plans will be shared with local authorities (point (i)).
CoCP		Street Works Permits and TTROs – not within Highways England's jurisdiction and coordination of these needs to be included in the CoCP. It should be confirmed here that the comments made by LAs on the 'Permit Scheme Considerations' have been incorporated into the procedure referred to. Thurrock Council's concerns relating to the management of the Street Works Permits and	This is not acceptable and is covered in detail in the Council's comments on the DCOv1 Order responses.

Source	Reference	Summary of Comments	Action and/or Recommendation
		TTROs is being considered as part of the response on the oCTMPfc and the draft DCO.  No progress has been made on this matter.	
CoCP		The Council reserves the right to comment when the full impacts and mitigation measures can be reviewed in order to understand what consent and permission will be required. Highways England provided the Consents & Agreements Position Statement to the Council in December 2020 and the Council provided comments on this in April 2021.	This is covered in the Council's comments on the DCOv1 Order responses
CoCP	Paragraph 5.2.2	Paragraph 4.1.3 confirms that the Communications and Engagement Plan (CEP) will be submitted for acceptance by Highways England, in consultation with the Local Planning Authorities. The Council would expect a commitment that no part of the authorised development may be commenced until the CEP has been approved by the relevant planning authorities, in consultation with relevant stakeholders.	Now included, but local authorities are only consulted and should be the approving body. Also, covered in the Council's comments on the DCOv1 Order responses.
CoCP	Table 4.1	No details regarding the appointment of a Community Construction Liaison Manager is included within the draft CoCP. The Council would expect a commitment in the CoCP that the Contractor will appoint a Community Construction Liaison Manager for the duration of works. The Community Construction Liaison Manager should prepare and implement the CEP and should act as main point of contact for stakeholders, provide information and resolve issues of concern.	Still missing.
CoCP	Paragraphs 5.2.7-5.2.9  Paragraph 5.2.10-5.2.13	Paragraphs 4.2.3-4.2.5 indicate the procedure for enquiries and complaints. However, this section should include a commitment to provide an 'Independent Complaints Commissioner' to adjudicate key matters, as is best practice with other NSIPs.  Furthermore, the Community Liaison Groups (CLG) should be set up as early as six weeks prior to the start of any onsite activity and should meet, at least, on a quarterly basis for the duration of the construction works. As a minimum, the	Not resolved and acceptable for all complaints to be dealt with by HE without any independent procedures.

Source	Reference	Summary of Comments	Action and/or Recommendation
		Council would expect invitations to join the CLG to be sent to all affected landowners and relevant Councillors with a membership cap put in place to ensure adequate representation.	There are no periods for when these CLGs should be set up and these must be added.
CoCP	Paragraph 4.3.2	Paragraph states that “if possible” the Contractor would distribute information sheets at least two weeks prior to relevant works being carried out. The Council would expect a definite notification period to be confirmed in the CoCP and for the notification to be earlier than two weeks.	Unchanged and needs amendment.
CoCP	Paragraph 6.1.1	FORS silver or gold accreditation - The position regarding a minimum of FORS Silver and other related Logistics standards is noted, however, the document does not specify by when those standards should be met and that they will be maintained and that compliance will be monitored.  No progress has been made on this matter.	This gold standard is not committed to yet and should be.
CoCP	Paragraph 6.1.1	CLOCS is far more than safe routeing. It guides safer standards in the industry and the Contractors should be required to become CLOCS champions and engender the adoption of the CLOCS principles by all those operating vehicles and drivers associated with the construction of the LTC. The CoCP should set out how the project will work actively to raise standards in safety and not just confirm compliance.  No progress has been made on this matter.	Although committed to, the further explanation and commitment to raise standards is not yet included and should be.
CoCP	Section 6.2	Phrase “where relevant” – specify which routes to be monitored/managed and how. Consultation with and approval of routes with LAs is essential, with any deviations being penalised – this should be covered. The OCTMP is being considered separately and concerns are raised about the absence of clear and confirmed routeing agreements or management measures thereof.  No progress has been made on this matter.	Considered with Appendix A (1).

Source	Reference	Summary of Comments	Action and/or Recommendation
CoCP		<p>Vehicle Booking Management System – Highways England to confirm method of coordination across contracts; and opportunities for retiming of movements to outside sensitive times. The document does not specify that the VBMS would be an electronic and internet based system. This would be fundamental to allow “live” access and monitoring of the system and the associated logistics management. The systems should be consistent and co-ordinated across the work packages and contracts.</p> <p>This matter is therefore not concluded and needs to be captured in the contractor co-ordination role that is to be detailed within the OCTMP.</p> <p>No progress has been made on this matter.</p>	<p>Considered with Appendix A (1).</p> <p>This matter is not yet covered in the CoCP and must be.</p>
CoCP	Paragraph 6.1.4	<p>Thurrock Council is not convinced that investigating the use of non-road modes of transport for materials, plant and equipment is a strong enough commitment to sustainable modes of transportation. HE must commit to using sustainable transportation such as marine and rail modes. If left to the contractor to “investigate” the cheapest and easiest option will be adopted rather than considering the environmental effects and the community impacts. The commitment to “investigating” non-road modes is also unsatisfactory as it means that the environmental and social effects of the mode that comes to be chosen in the event will not have been subject to public consultation and the Council will not have had the opportunity to have its views on these topics considered at a sufficiently formative stage of the project. This is a serious legal defect in the approach currently adopted by HE.</p> <p>No progress has been made on this matter.</p>	<p>Very vague in CoCP and also covered in Appendix B (2) and in the Main Report of the Council’s Consultation Response.</p>
CoCP	Paragraph 6.1.4	<p>See above concerns relating to the absence of a commitment to using marine or rail modes of transport. The oTMPfc is being responded to separately, however the CoCP must include the commitments to which the Contractors must adhere. The oTMPfc will be part of the framework to which the Contractors will develop their methods of management. Contractors will optimise their operations to</p>	<p>Very vague in CoCP and also covered in Appendix B (2) and in the Main Report of the Council’s Consultation Response.</p>

Source	Reference	Summary of Comments	Action and/or Recommendation
		<p>maximise profit and will typically use the cheapest method of transport unless required by contract to maximise sustainability and minimise community impact. As set out above, this approach is legally inadequate since it prevents any, or any effective, public consultation in respect of these matters.</p> <p>No progress has been made on this matter.</p>	
CoCP	Section 6.2	<p>Paragraph 5.2.1 should identify that the Construction Traffic Management Plans would include measures to ensure the safe operation of the road network for other road users aside from those related to the construction of the scheme.</p> <p>No progress has been made on this matter.</p>	Very vague in CoCP and also covered in Appendix B (2) and in the Main Report of the Council's Consultation Response.
CoCP	Sections 2.3 and 6.2	<p>A system for updating and managing Traffic Management Plans is required to:</p> <ul style="list-style-type: none"> <li>▪ ensure that they are effective and current to changing programmes/tasks/methods;</li> <li>▪ coordinated across contracts;</li> <li>▪ give clarity of ownership of measures, enforcement and consent;</li> <li>▪ include associated off-site Statutory Undertakers Works and;</li> <li>▪ reflect on-going maintenance regimes – including street cleansing.</li> </ul> <p>Awaiting adjustments and needs to be reflected in the OCTMP.</p> <p>No progress has been made on this matter.</p>	Not yet covered adequately.
CoCP		<p>The system of monitoring and review must be set out in detail in the CoCP with the Contractors required to provide monitoring evidence to the Local Highway Authorities on a six monthly basis and that information reflected on at a defined working group/s to allow reflection and mitigation where targets are not met or problems with workforce travel are identified, such as illegal or inappropriate parking, network capacity problems or anti-social behaviour.</p>	<p>Not yet covered.</p> <p>Further comments are included in Appendix A (1) and (2)</p>

Source	Reference	Summary of Comments	Action and/or Recommendation
		How will a Framework Construction Travel Plan differ from the oTMPfc and how will all documents be co-ordinated including with the CoCP and CWTP?  No progress has been made on this matter.	
CoCP		Travel Plans – it is not clear what the overall project targets for non-car traffic (public transport (including shuttle buses), cycling and walking) will be for workers – where is this set out as a means of monitoring compliance/success? There should be a commitment for no worker parking in compounds.  No progress has been made on this matter.	Further comments are included in Appendix A (2), but no targets have been set.
CoCP	Table 6.1	Normal Working Hours – mobilisation and shut down. (06:00-07:00hrs and 19:00-20:00hrs Mon-Fri; 16:00-17:00hrs Sat) include “deliveries” and “unloading”. Highways England to be specific as to what this includes, for example, abnormal indivisible load (AIL), materials, lorries, equipment and plant, supplies etc.? Normal working hours should include site establishment and demobilisation activities. HE have stated that activities will not include operation of plant or machinery and will be limited to activities that do not cause a significant noise and vibration impact, and disturbance to local residents, schools or businesses. This would be agreed under the Section 61 consent. HE have said that they are discussing this internally so including in SoCG log.  The proposed wording does not clearly state that the movement of plant, equipment and materials to or from the worksites will not be permitted outside of the consented working hours.  No progress has been made on this matter.	Still not resolved adequately.
CoCP		Saturday hours should be limited to 0700-1300 only, as is normal practice.  No progress has been made on this matter.	



Source	Reference	Summary of Comments	Action and/or Recommendation
CoCP	Table 6.1	<p>Tunnelling – “Key Support Activities” – What is included? Excavating material, grout import, rails/conveyor; segments? These lead to off site movements and movements outside of acoustic protection areas and should be excluded from the 24-hour operations.</p> <p>It is necessary to state that movement to or from the worksites will not occur outside the consented daytime working hours, even for tunnelling operations. This should include but not be limited to: materials, plant and equipment movements to and from the segment factory; the tunnel mining and construction; and the handling of excavated material. The contractor must use stockpiled materials from within the worksites for operations outside the daytime working hours.</p> <p>No progress has been made on this matter.</p>	Unresolved.
CoCP	Table 6.1	<p>Earthworks – do hours include start up/shut down? How would these movements be managed and differentiated between “normal working hours” and “earth works”? The open phrasing of these working hours i.e. “including but not limited to” would allow the movement of materials on the road network. The extended earthworks hours need limiting to specific summer months of May-September and any significant noise or dust effects on nearby properties mitigated and covered in the REAC (an improvement is required on paragraph 5.4.4).</p> <p>No progress has been made on this matter.</p>	Being covered in discussions with Hatch Measure M5 – additional wording under review, but not yet included within Consultation version of CoCP
CoCP	Paragraphs 4.3.4, 6.1.2, Table 6.2 and 6.4.11	<p>How will Highways England and contractors ensure AIL notices are communicated fully to Thurrock Council and Essex Police? CoCP to set out notice period and mechanism to be applied for AILs. The communications protocols for AIL movements must be set out in the CoCP. These must reflect the standard adopted protocols. This will allow co-ordination across the contracts and also with external AIL movements.</p>	Not resolved adequately.

Source	Reference	Summary of Comments	Action and/or Recommendation
		No progress has been made on this matter.	
CoCP	Table 6.2	Extended working hours – how far in advance will small s61 notices be made?  No progress has been made on this matter.	Not yet resolved or clear.
CoCP	Table 6.2	Short notice working – how will the use of these hours be limited such that they do not become common place?  No progress has been made on this matter.	Not yet resolved or clear.
CoCP	Table 6.2	Tidal river working – these should be limited to marine operations only and no land based movements/operations included.  No progress has been made on this matter.	Not yet resolved or clear.
CoCP	Table 6.2	River transport hours – there is no commitment to move material by marine operations and no derogation process prescribed. The CoCP should clearly differentiate the hours of operation between movement within the compounds from marine interfaces and movements to the works areas from off-site marine interfaces, such as the existing Port of Tilbury.  Further to the concerns that there is no commitment or requirement for the use of marine transport, the CoCP does not set out the times for the operations of marine transport and the movements between the marine/land interface and the working area or compound.  The latter point of the comment requires clarity on the hours of operation that would be permitted for the movement of materials to the works area or compound and how those hours would differ between movements wholly within the works areas or compounds and movements from a marine interface which is outside the works areas or compounds (such as the Port of Tilbury).	Not yet resolved or clear.  Also, further comments are within Appendix B (2)

Source	Reference	Summary of Comments	Action and/or Recommendation
		<p>The reference to a derogation process is to consider how operations that were to be marine based may be varied if there is a requirement to move material by road as a consequence of temporary failures in the marine systems and process. That contingency planning and agreement must involve Thurrock Council for operations affecting its borough.</p> <p>No progress has been made on this matter.</p>	
CoCP		<p>Highways England and its contractors need to commit to actions and not use - "Depending on feasibility", "Where practicable", and "Avoid".</p> <p>No progress has been made on this matter.</p>	General point, but not resolved.
CoCP	Sections 6.5 and 6.6	<p>How will inappropriate off site parking by work force and subcontractors be managed? This will increase the burden on the Council. How are rejected/non-compliant vehicles to be managed?</p> <p>No progress has been made on this matter.</p>	Unresolved.
CoCP	Sections 6.5-6.7	<p>How will access to accommodation and welfare facilities within the compounds be managed outside of working hours to ensure construction vehicle movements are not occurring during those periods i.e. differentiating between accommodation movements (including deliveries) and construction based movements?</p> <p>No progress has been made on this matter.</p>	Unresolved
CoCP	Paragraph 6.6.5	<p>LAs should be consulted on the compound layout for all noisy or dusty activities or where there are concentrations of personnel.</p> <p>No progress has been made on this matter.</p>	It is noted that Local Authorities will only be given site layouts and not allowed to comment on problematic noisy/dusty activities,

Source	Reference	Summary of Comments	Action and/or Recommendation
			which is not acceptable in areas close to sensitive receptors.
CoCP	Paragraphs 6.7.7 and 6.7.9	Contractors to ensure hoardings and site boundaries do not create hazardous zones for vulnerable users.  No progress has been made on this matter.	Not yet resolved.
CoCP	Paragraph 5.7.9	This should also include where noise generating activities are located.  No progress has been made on this matter.	Not yet committed to, so not resolved.
CoCP		Will there be any community art on any compound hoardings that the community can contribute to?  No progress has been made on this matter.	Unclear.
CoCP	Section 6.9	“Emergency Preparedness Procedures” – these need to be reviewed quarterly or to reflect changes in procedure, whichever is sooner, which will affect the validity of the plan.  No progress has been made on this matter.	Resolved.  Also, furthermore detailed comments will be by the ESSPSG within their joint and individual consultation responses.
CoCP		The definition of reinstatement needs to be much clearer, to ensure a degree of betterment and provision for future use, where appropriate.  No progress has been made on this matter.	Unresolved.
CoCP		The CoCP must:	Unresolved.

Source	Reference	Summary of Comments	Action and/or Recommendation
		<ol style="list-style-type: none"> <li>1. Include commitments to maximise active and environmentally sensitive travel by construction workforce and to maximise the use of low emission vehicles by the contractors, sub-contractors and hauliers.</li> <li>2. Detail how other road users will be protected from the effects of construction related movements. This must include measures to mitigate the impacts on cyclists, pedestrians and equestrians. The need for temporary or permanent diversions must also include the effects on public transport services – buses, rail and marine.</li> <li>3. Identify the metrics that will be reported, to whom and by when, to demonstrate compliance with the CoCP and associated CLPs and TMPs. These must include but not limited to: reporting of incidents; driver licence checks and associated non-compliance; and vehicle booking and FORS accreditation compliance.</li> <li>4. Define construction related vehicle access routeing and how those routes will be complied with, monitored and managed. The strategy must include how those routeing commitments will be conveyed to the supply chain, contractors, sub-contractors and other associated vehicle operators.</li> <li>5. Set out how weekly look-ahead projections should be provided by the contractor or Highways England, giving a co-ordinated projection of construction related traffic on the affected network. This process must include a method to report changes in project programmes and the rescheduling of project tasks and operations and the implications of deviating from those projections.</li> </ol> <p>HE response to the above –</p> <ol style="list-style-type: none"> <li>1. The CoCP requires CLOSC, FORS at Silver or above and consideration of multimodal transport. See COCP Section 5.1. The Project is committed to, and will encourage, sustainable travel. Travel Plan(s) for the movement of personnel to and from the worksites will be developed by the Contractors following the latest guidance and best practice, such as that produced by Transport for London (2013). Travel Plan(s) will be produced by the Contractors for each compound, or compounds where these are closely located with similar levels of accessibility. The Travel Plan(s) will be subject</li> </ol>	<p>Unresolved.</p> <p>Further comments are within Appendix A (1) and (2)</p>

Source	Reference	Summary of Comments	Action and/or Recommendation
		<p>to review (and approval) by the SoS, in consultation with relevant planning authorities who will monitor the plans. See Section 5.3 of the CoCP. As suggested by Thurrock Council the Project is preparing a Framework Construction Travel Plan and more detail will be shared in the coming weeks. The anticipated structure will include; aims, measures, targets, action plan, monitoring.</p> <ol style="list-style-type: none"> <li>Will be outlined further in Section 4 of the OCTMP.</li> <li>Some metrics will be outlined in CTMP, specific details to be developed by the contractor.</li> <li>Will be outlined further in Section 4 of the OCTMP. Will be outlined further in Section 4 of the OCTMP. The contractor will engage with the LAs.</li> </ol> <p>These points will be considered in relation to the OCMP and CWTP.</p> <p>No progress has been made on this matter.</p>	
CoCP		<p>The CoCP must:</p> <ol style="list-style-type: none"> <li>Include how safety and environmental improvement initiatives will be progressed to reduce the materials and vehicle miles and reduce emissions.</li> <li>Set out how contractors will optimise the use of autonomous plant and equipment and a modernised fleet to reduce risks. The document must include strategies for the management of these plant and systems.</li> <li>Set out the minimum standard to be met for workforce accreditation e.g. traffic marshal, gate staff and workers banking vehicles – including CSCS, NRSWA and/or LANTRA accreditations.</li> <li>Identify the driver training standards and the aspirations to increase skill levels within the industry – including CLOCS training and Van Smart or equivalent standards.</li> <li>Include commitments to minimise road movements of materials including primary aggregates for concrete and other construction materials. This should include the maximisation of the use of marine operations and rail transport.</li> </ol>	Unresolved.

Source	Reference	Summary of Comments	Action and/or Recommendation
		<p>6. Indicate where commits are to be made to use local plant and materials suppliers to minimise the transportation mileage.</p> <p>7. Identify the measures to encourage active and environmentally sensitive travel by those workers employed across the delivery of the LTC project – client, contractor and sub-contractors.</p> <p>8. Define how accesses will be managed to include safe personal protection equipment (PPE) free routes for visitors and workers to worksites and compounds.</p> <p>HE response –</p> <p>1. The CoCP (Application Document 7.11) requires a Construction Logistics Plan to be produced which will require CLOCS, FORS at Silver or above and consideration of multimodal transport (Section 5.1).</p> <p>2. Under consideration internally.</p> <p>3. Traffic Marshalls must meet the CLOCS Site Access Traffic Marshall (SATM) standard, equivalent or better. If a Security Guard, they must be dual trained. On-highway traffic management would be under LANTRA accreditation. Full NRSWA works would be via NRSWA accredited personnel. SATM may only use a Stop-Works board to control access to/from a site.</p> <p>4. CLOCS and FORS Silver or above, with the MWC to detail their training plan (Driver CPC etc.) for their scope.</p> <p>5. The CoCP requires consideration of multimodal transport. See CoCP Section 5.1.</p> <p>6. Under consideration internally.</p> <p>7. Under consideration internally.</p> <p>8. There will be PPE free access to non-working areas, such as main car parks and main offices etc. PPE would be required beyond the main compounds. All personnel will be able to arrive for work without PPE and then be required to change if going onto site.</p>	<p>See comments above.</p> <p>Unresolved.</p> <p>Needs inclusion in CoCP</p> <p>Resolved.</p> <p>Refer to Comments in Appendix A (1)</p> <p>Unresolved.</p> <p>Unresolved.</p>

Source	Reference	Summary of Comments	Action and/or Recommendation
		<p>Awaiting response. Where commitments are stated here they must be translated into the CoCP and the oTMPfc. It appears that HE is proposing not to raise standards within the industry but simply to stand still. It is unfortunate that this major project is not able to press for improvements in standards. Leaving the contractor to define the standards will derive the absolute minimum commitments and not stretch or incentivise the contractors to raise standards.</p> <p>No progress has been made on this matter.</p>	Not covered in CoCP
CoCP		<p>Hatch Measure L5 - how is this incorporated into the CoCP/REAC?</p> <p>No progress has been made on this matter.</p>	Unresolved
CoCP		<p>Whilst the additional text in the CoCP and in the REAC on the Exceedance Framework is welcomed, there are two key areas that we require amendments to the REAC (as set out in red text or as comments below), in particular:</p> <p>'NV015 - In the event that noise and vibration monitoring (as provided for in NV009) identifies that noise and vibration limits (as provided for in NV004) have been exceeded the Contractor shall, at the earliest practicable opportunity, investigate to confirm that works being undertaken as part of the scheme are the source of the noise. If this is confirmed, then the contractor shall immediately stop those works causing the exceedance and undertake a further review of the best practicable means employed for the activity to minimise noise and agree additional or modified mitigation with the relevant local authority. These particular works will only re-commence when satisfactory and agreed (with the local authority) mitigation is provided.</p> <p>AQ006 – the local authorities must be able to comment and approved if dust monitoring is required and the monitoring locations.</p>	Only covered in REAC, not CoCP and require inclusion in CoCP – unresolved.



Source	Reference	Summary of Comments	Action and/or Recommendation
		<p>AQ007 – dust monitoring should begin at least 6 months in advance of construction to cope with seasonal variations.</p> <p>Furthermore, Thurrock Council require operational noise and AQ monitoring for up to 3 years following completion of the works and for the same Exceedance Framework to be applicable during this period.</p> <p>No progress has been made on this matter.</p>	
CoCP	Table 4.1	Within “Table 4.1 – Envisaged roles ...” there is no mention of “The materials and Waste Manager” which is identified within MW006.	Unresolved
CoCP	Table 4.2	Table 4.2 makes no reference to environmental permits necessary for the storage or treatment of waste or waste carriers licenses required for its transport. Whilst these may not be required, we have not been provided with sufficient evidence within the SWMP or MHP to discount them.	Refer to Comments in Appendix B (1) and (2)

## 2.2 Summary and Recommendations

2.2.1 Key issues and recommendations identified above by the Council can be summarised as:

### Summary

- i. Further detailed comments, for many of actions and/or recommendations, are set out in the Main Report and Appendices of the Council's Consultation Response, and in previous Council comments on the 'Worker Accommodation Summary' and DCOv1 Order documents.
- ii. Some issues/ concerns have not yet been resolved by HE, for example, there are unresolved concerns about the safety of the interchange between LTC and the Orsett Cock Roundabout. In the majority of instances, further details/information are awaited.
- iii. There are a number of items not part of this consultation or still missing from the CoCP, for example, HE should provide a Low Emissions Strategy for Construction, which is only partly done in the Carbon and Energy Plan. These documents have, as yet, not been consulted upon. though they need to be – and the failure if them to have been subject to consultation is a serious legal defect.
- iv. Some measures are still awaited in DCOv2, such as the impact of mitigation measures such as earth works and planting, upon the historic character of the landscape.
- v. Most Hatch measures are not secured and still under discussion.
- vi. Many principles; approaches to construction; control measures; standards; and targets are still unconfirmed by HE. By definition, these matters have not yet been consulted upon. They need to be.
- vii. The Council does not accept that the Secretary of State should be the determining body for the discharge of the DCO Requirement relating to the Environmental Management Plans.
- viii. Some actions are only covered in REAC and not included in the CoCP.

### Recommendations

- i. HE should refer to the Council's consultation responses set out in the Main Report and Appendices, as well as previous Council comments on the 'Worker Accommodation Summary' document and DCOv1 Order.
- ii. Issues/concerns detailed in the table above need to be fully resolved by HE, and the Council need to be informed of how these concerns are to be resolved.
- iii. Information that is missing from the consultation (and the CoCP) need to be included and subject to further public consultation.
- iv. DCOv2 needs to include full details, for example, mitigation measures relating to the impact of earthworks and planting upon the historic character of the landscape.
- v. All Hatch Measures need to be confirmed and secured.
- vi. HE need to confirm and secure: principles; approaches to construction; control measures; standards; and targets, either through the CoCP and/ or REAC.

- vii. The Council should be the determining body for the discharge of the DCO Requirement relating to the Environmental Management Plans.
- viii. Some actions are only covered in REAC and require inclusion in the CoCP.



## Lower Thames Crossing

Review of the Register of Environmental Actions and Commitments  
(REAC)

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

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**Report Title:** Review of the Register of Environmental Actions and Commitments (REAC)

**Doc Ref:** Revision B

**Date:** October 2021

	Name	Position	Signature	Date
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<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	-	CS	CS
B	05/10/2021	Issued to National Highways	-	CB	CB

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the updated version of the Code of Construction Practice (CoCP) within the Community Impact Consultation and included in the CoCP is the Register of Environmental Actions and Commitments (REAC), which would both be control documents in DCOv2.
- 1.1.2 This document provides a complete set of comments covering all matters related to the REAC.
- 1.1.3 The document responds only to the sections relating to the north of the river within Thurrock.
- 1.1.4 The key general points of concern are set out below, although the summary of key technical matters are set out in the 'Summary and Recommendations' below:
- i. There is no sequence to the order of REAC topics and it should follow the sequence in the topics within the ES chapters. The REAC document is all mixed up and therefore difficult to follow, e.g. 'GS' on page 53 and then on pages 66-74. There are potential repeats within the REAC document, e.g. TB on Pp55-58 and again with further changes on Pp101-106; and for GS and LS and NV.
  - ii. The Council has provided new comments and queries for updated REAC (June 2021) and further comments (1-24 in the table below) on the REAC, which are set out in the table below.
  - iii. There are a number of commitments/ detail missing from the REAC, for example, record of Baker Street Windmill setting not mentioned (CH NEW); no direct reference to the economy or local employment/skills commitments or the Skills and Legacy Plan (Further comments (7)); and various others.
  - iv. Remaining outstanding information/ issues/ queries and, in some instances, no further adequate information has been supplied from HE in relation to issues previously raised.
  - v. Wording in some REAC commitments should be amended to provide clarity/correction.
  - vi. REAC commitments could go further to improve conditions/outcomes, for example, including an incentive for more ambitious carbon reduction targets should be included (CC002).
  - vii. A number of documents that are listed, where the detail will still need to be finalised for DCOv2, have not been viewed by the Council. These will need to be provided and consulted upon, at a sufficiently formative stage in the project's development, in due course.
  - viii. The detail for many REAC commitments is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion. Need to continue to review this, as the position is unchanged.
  - ix. There is a need to cross reference some REAC commitments for avoidance of doubt, for example, LV001 and LV028.



- x. The Council continues to be concerned that some issues are not assessed within the Environmental Statement, for example, the effects of the scheme on local traffic (including all vulnerable users) for either the construction period or the operational phase.
- xi. LV029 stated in updated REAC as not used. What is the rationale for this change and its removal?
- xii. Lack of adequate mitigation measures in regard to some commitments, for example, hazardous substances (MW005), use of electric/hybrid vehicles (AQ001) and 'further comments (1)' cultural heritage.
- xiii. Further detail will need to be submitted to the Council at the detailed design stage for many commitments, for example, demonstrating that SuDS Strategy meets all of the LLFA's requirements (RWE025).

## 2 Review of the Register of Environmental Actions and Commitments (REAC)

### 2.1 Comments

Table 2.1: The Council's Comments on the Register of Environmental Actions and Commitments (REAC)

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
TB019	An area (approx. 1 hectare) of priority Biodiversity Action Plan acid grassland in Low Street Pit (as indicated on ES figure 8.1.) would be translocated to a receptor site. The receptor site is an area of grassland located between the sea wall and the Parish Church of St. Catherine (centred on Grid Reference TQ 69011 77146), approximately 100m to the north of Coalhouse Fort. This would be achieved by removing turf from the acid grassland and replanting it on the receptor site shown on the Environmental Masterplan.	<p>The Council is yet to see the detail of this proposal and therefore is unable to confirm whether it is the most appropriate receptor site. Factors such as underlying geology and proximity to the river compared to its current sheltered location need to be considered. The Council and Natural England should be consulted on this.</p> <p>We have taken soils samples to confirm that this site would be viable with suitable preparation.</p> <p>Details on receptor site preparation would be set out in the LEMP required under REAC (ES Appendix 2.2) item LV029: The Landscape Scheme prepared in accordance with Requirement 5 of the DCO (DCO application ref 3.1) would include a Landscape and Ecology Management Plan (LEMP).</p> <p>An outline LEMP (OLEMP) is currently being prepared for DCO v2 submission which will be shared with Local Authorities in February '21. The final LEMP will be prepared in line with the controls in the OLEMP. It should be noted that under Requirement 5, Thurrock Council are consultees to the Landscaping Scheme. We will be pleased to discuss this in further detail as the proposals</p>	<p>Unresolved</p> <p>Review of documents that are listed and ongoing discussions confirm that this issue is being addressed. The detail will still need to be finalised.</p> <p>This is in the OLEMP and the detail will be in the LEMP. Thurrock will be a consultee.</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		are further developed as part of discharging Requirement 5.	
LV001	Detailed design for the alignment of diverted utilities to avoid trees and vegetation as far as reasonably practicable, and in accordance with the landscaping scheme as approved by the SoS.	<p>Reference to the Arboricultural Method Statement and BS5837:2012 should be made.</p> <p>Preparation of an Arboricultural Method Statement in accordance with BS 5837:2012 is provided for in REAC item LV028 and need not be duplicated here.</p>	<p>Agree in principle, however, could refer to LV028 as well? The Arboricultural Impact Assessment has been provided which shows the trees and woods that could be impacted.</p> <p>Agreed it is covered in LV028 - would prefer there to be a reference to it for avoidance of doubt.</p>
LV013	Where soil is excavated and retained on site temporarily, it would be stockpiled in the form of an earth bund to facilitate screening for residential properties along Fort Road at the urban edge of Tilbury.	<p>In principle this appears to be appropriate, however the Council does not have any plans showing where this proposed bund will be site or heights, gradients etc.</p> <p>This detail is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion.</p>	Need to continue to review this, as the position is unchanged.
LV015	Where soil is excavated and retained on site temporarily, it would be stockpiled in the form of earth bunds to facilitate screening for residential properties along Church Road.	<p>In principle this appears to be appropriate however the Council does not have any plans showing where this proposed bund will be site or heights, gradients etc.</p> <p>This detail is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion.</p>	Need to continue to review this, as the position is unchanged.

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
LV016	Construction compound facilities greater than 5m in height would be located at the south of the compound, adjacent to compound CA05, where reasonably practicable, to maximise distance from residential properties on Church Road.	<p>In principle this appears to be appropriate however the Council does not have any plans showing where this proposed bund will be site or heights, gradients etc.</p> <p>This detail is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion.</p>	Need to continue to review this, as the position is unchanged.
LV017	Where soil is excavated and retained on site temporarily, it would be stockpiled in the form of earth bunds to facilitate screening for residential properties within Chadwell St Mary where reasonably practicable.	<p>In principle this appears to be appropriate however the Council does not have any plans showing where this proposed bund will be site or heights, gradients etc.</p> <p>This detail is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion.</p>	Need to continue to review this, as the position is unchanged.
LV018	Construction compound facilities greater than 5m in height would be located at the south of the compound, adjacent to compound CA05, as far as reasonably practicable, to minimise visibility from residential properties at Chadwell St Mary.	<p>In principle this appears to be appropriate however the Council does not have any plans showing where this proposed bund will be site or heights, gradients etc.</p> <p>This detail is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion.</p>	Need to continue to review this, as the position is unchanged.

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
LV019	Construction compound facilities greater than 5m in height would be located as westerly as reasonably practicable, to maximise distance from residential properties on Stifford Clays Road and Fen Lane.	<p>In principle this appears to be appropriate however the Council does not have any plans showing where this proposed bund will be site or heights, gradients etc.</p> <p>This detail is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion.</p>	Need to continue to review this, as the position is unchanged.
LV020	Construction compound facilities of greater than 5m in height would be located as north easterly as reasonably practicable to minimise visibility from residential property (Hobletts).	<p>In principle this appears to be appropriate however the Council does not have any plans showing where this proposed bund will be site or heights, gradients etc.</p> <p>This detail is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion.</p>	Need to continue to review this, as the position is unchanged.
LV021	Where soil is excavated and retained on site temporarily, it would be stockpiled in the form of earth bunds to facilitate screening for residential properties to the south.	<p>In principle this appears to be appropriate however the Council does not have any plans showing where this proposed bund will be site or heights, gradients etc.</p> <p>This detail is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion.</p>	Need to continue to review this, as the position is unchanged.
LV022	Construction compound facilities of greater than 5m in height would be located as	In principle this appears to be appropriate however the Council does not have any plans showing where this proposed bund will be site or heights, gradients etc.	Need to continue to review this, as the position is unchanged.

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	westerly as reasonably practicable to maximise the distance from the North Ockendon Conservation Area.	This detail is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion.	
LV023	It is anticipated that a concrete batching plant would be located within this compound. This facility would be located as south westerly as far as reasonably practicable, to maximise distance from the North Ockendon Conservation Area.	<p>In principle this appears to be appropriate however the Council does not have any plans showing where this proposed bund will be site or heights, gradients etc.</p> <p>This detail is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion.</p>	Need to continue to review this, as the position is unchanged.
LV024	Where soil is excavated and retained on site temporarily, it would be stockpiled as earth bunds to facilitate screening for the North Ockendon Conservation Area.	<p>In principle this appears to be appropriate however the Council does not have any plans showing where this proposed bund will be site or heights, gradients etc.</p> <p>This detail is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion.</p>	Need to continue to review this, as the position is unchanged.
LV028	An Arboricultural Method Statement and Tree Protection Plan would be prepared in accordance with BS 5837:2012 identifying measures for the protection of retained vegetation prior to the commencement of site	<p>The Arboricultural Method Statement and Tree Protection Plan should be developed and approved in consultation with the Council and other relevant local authorities prior to implementation.</p> <p>Further detail on these measures would be worked up in the environmental management plan in accordance with</p>	The Arboricultural Impact Assessment has indicated trees to be removed or possibly lost which provides an indication of the impacts on trees.

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	clearance works. These measures would be complied with during construction and all works to trees and vegetation removal would be implemented under the supervision of the Environmental Clerk of Works.	Requirement 4 of Schedule 2 to the DCO (DCO application ref 3.1)  Requirement 4 provides for consultation with the relevant planning authority.	Need to continue to review; however, there are not large numbers of trees that would be directly impacted.
LV029		REAC now says that LV029 is not used?  LEMP is mentioned but no information supplied on what this covers – is this sufficient and does it adequately cover visual amenity for residents in relation to protecting and promoting mental health and well-being.	LV029 stated in updated REAC as not used. What is the rationale for this change and its removal?
LV032	A minimum of 30 individual specimen trees would be planted as replacement for 10 lost veteran trees. Fifteen such trees would be planted to the south of the River Thames and 15 to the north of the River Thames, to reflect the equal split of lost trees on either side of the River. The location, stock size and species selection would be agreed with the Secretary of State following consultation with the relevant local planning authorities. Suitable species could include a combination of Oak (Quercus	There is a need for a clear planting timeline to ensure that trees have grown adequately to provide good visual cover and air pollution absorption during both the construction and operational phases. The types of plants to be planted will require consideration in term of choosing species that provide visual cover and shading and are able to effectively absorb harmful gases in support of reducing impacts arising from air pollution and climate change.	This remains an outstanding query as no further adequate information supplied in relation to issues previously raised. There is still a need for a clear planting timeline to ensure that trees have grown adequately to provide good visual cover and air pollution absorption during both the construction and operational phases. We would expect that the species to be planted to replace veteran trees would be those that are the most effective at absorbing CO2, and other particulates and provide visual cover and shading to support the reduction of poor air quality and to support reductions in climate change and their negative impacts on health. This should be

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	robur) and Sweet Chestnut ( <i>Castanea sativa</i> ). This would be undertaken during the construction phase within locations selected to allow sufficient open space for establishment of an open crown, whilst being as close as reasonably practicable to the location of the lost existing veteran trees to provide some ecological connection with other veterans nearby.		based on the latest evidence and best practice.
MW005	Undertake pre-demolition surveys of any structures and buildings. Demolition materials would be identified and quantified including potential sources of recycled aggregate to be reused on site, as well as hazardous materials such as asbestos.		No clear outline of mitigation measures that will be implemented in the event that materials are identified as being hazardous. Clear mitigation measures are required in relation to how hazardous substances will be disposed of in a safe manner that protects workers health. If this is linked to mitigation outlined elsewhere in the REAC, then clear signposting is required.
MW014	The road operator would provide a summary of materials used and waste generated during the first year of operation in line with requirements of DMRB, LA 110, Material Assets and Waste (Highways England		Is one year long enough to adequately monitor issues? Should this period be longer (e.g. a few years in length) with more monitoring assessment points during operation?



REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	2019). This information would be reviewed against the forecast presented in Environmental Statement, Chapter 11, Material assets and waste and used to update the Environmental Management Plan for future operational years.		
GS002	Prior to any construction compound area being prepared, a pre-condition survey would be undertaken to determine the current land quality across the compound area. A repeat survey would be done after the compounds have been removed to confirm that the area has been returned to its previous condition where reasonably practicable or in line with landowner agreements.		Should part of the achievement criteria be that the areas affected will be returned to previous condition/higher quality conditions?
RDWE001	Work site drainage systems would incorporate pollution control systems designed in line with Control of Water Pollution from Construction Sites C532 (CIRIA 2001) or as agreed with Highways England.	<p>Utilise good practice pollution prevention methods for activities such as excavation and dewatering, storage of fuels, chemicals and oils, vehicle washing.</p> <p>All refuelling, oiling and greasing by the Contractor to take place above drip trays or on an impermeable surface which provides protection to underground strata and watercourses and away from drains as far as reasonably</p>	<p>Commitment text has been amended in the June REAC v0.2 replacing reference to Highways England with SoS. Now closer to text in Schedule 2 to the draft Development Consent Order requirements:</p> <p>'Work site drainage systems would incorporate pollution control systems designed in line with Control of Water</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		<p>practicable. Vehicles will not be left unattended during refuelling.</p> <p>Access to pollution control equipment and spillage clean up facilities to be provided at all worksites and the Contractor must take measures to prevent pollution caused by severe weather.</p> <p>A commitment should be made to engage with the LLFA on approval of any 'Construction Management Plans' associated with specific work activities (i.e. Outlining flood risk and water quality mitigation for specific work activities and how these would be managed).</p> <p>The measure is specifically committing to adopt CIRIA guidance in the design of site drainage systems. It needs to be read in conjunction with other measures presented in the REAC (ES Appendix 2.2) e.g. measures for protection from use and storage of chemical and fuels including use of drip trays, etc are provided for in REAC item GS004. AQ005 provides for provision of spill clean up equipment. RDWE037 provides for protection of flood storage capacity during construction works.</p> <p>The last point on engagement with the LLFA on CEMPs associated with specific work activities is under discussion and will be added to the logs and picked up as part of the bigger discussion on the Order and Requirements after LTC receive Thurrock's comments on the Draft Order.</p> <p>We are satisfied that issues surrounding engaging the LLFA on work specific Construction Management Plans</p>	<p>Pollution from Construction Sites C532 (CIRIA, 2001) or as agreed with the Secretary of State. Watercourses near work sites would be regularly inspected for signs of siltation or other forms of pollution in line with CIRIA C741 guidance (CIRIA, 2015) and pumped groundwater, process effluents and construction site runoff would be tested to ensure compliance with discharge consent requirements.'</p> <p>Query whether it should read '..and as agreed with SoS'?</p> <p>Achievement Criteria text has changed: 'Approval by SoS of construction site drainage systems following consultation with the relevant planning authority'</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		are being addressed at this stage so would recommend this is updated to AMBER. Once confirmation has been received of the proposed action to address this point, and this is found to be acceptable we will look to update this to GREEN. Issues surrounding Environmental Permitting requirements and WFD Assessment would be subject to approval by the Environment Agency who are the regulating authority. (LS)	
RDWE006	Surface water drainage would be provided for all surfaced roads and yards, buildings and any other hard or impermeable surfaces. Berms and bunds would be constructed to manage surface water runoff where necessary to protect watercourses, prevent ponding and to keep general runoff separate from contaminated runoff. Rainfall runoff from areas where there is a risk of contamination would be managed using temporary drainage systems and would be subject to treatment prior to discharge to any surface watercourse or drain. Rainfall runoff from areas of low contamination risk would be captured and re-used where reasonably practicable e.g. to supply	<p>Implementing a surface water or groundwater monitoring plan, particularly in relation to works that could affect aquifers or drilling works.</p> <p>A commitment should be made to engage with the LLFA on approval of any Construction Management Plans' associated with specific work activities (i.e. Outlining flood risk and water quality mitigation for specific work activities and how these would be managed).</p> <p>This measure specifically relates to the design of the drainage system. REAC (ES Appendix 2.2) measure GS001 provides for protection of groundwater where drilling investigations are required. RDWE037 provides for the protection of flood storage capacity with the floodplain. RDWE provides for drainage systems designs to protect water quality. GS004 provides measures to protect contamination of drainage water.</p> <p>Further detail on these measures would be provided in the EMP v2 for approval by the Secretary of State following consultation with the relevant planning authority to the extent that it relates to matters relevant to its function.</p>	Achievement Criteria amended: 'SoS approval of drainage details following consultation with relevant drainage authority.' reference to Highways England approval removed.

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	wheel wash facilities or for dust suppression, to reduce consumptive water use.	<p>The last point on engagement with the LLFA on CEMPs associated with specific work activities is under discussion and will be added to the logs and picked up as part of the bigger discussion on the Order and Requirements after LTC receive Thurrock's comments on the Draft Order.</p> <p>We are satisfied that issues surrounding engaging the LLFA on work specific Construction Management Plans are being addressed at this stage so would recommend this is updated to AMBER. Once confirmation has been received of the proposed action to address this point, and this is found to be acceptable we will look to update this to GREEN. Issues surrounding Environmental Permitting requirements and WFD Assessment would be subject to approval by the Environment Agency who are the regulating authority.</p>	
RDWE007		<p>The LLFA have no further comments to make at this stage. Issues surrounding Environmental Permitting requirements and WFD Assessment would be subject to approval by the Environment Agency who are the regulating authority. (LS)</p> <p>HH - Who will be responsible for funding and undertaking works to fix/improve flood defences damaged as a result of the project as this not clearly stated. And in what timescales will repairs be undertaken to ensure that there is no impact on residents' health and wellbeing in terms of anxiety or relating to flood events?</p>	This remains an outstanding issue for the Council - who will be responsible for funding and undertaking works to fix/improve flood defences damaged as a result of the project as this not clearly stated; and in what timescales will repairs be undertaken to ensure that there is no impact on residents' health and wellbeing in terms of anxiety or relating to flood events?
RDWE008	Where below ground utilities diversions are required, watercourses would be crossed using trenchless	Greater commitment should be made to engage with the LLFA on approval of any works, on or around an Ordinary Watercourse in line with the Protective Provisions for Ordinary Watercourses requirements.	We are satisfied that this issue is addressed through the Protective Provisions contained within the DCO. There are, however, ongoing

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	techniques, in order to avoid disturbance to channel form, flow regimes and riparian habitats and species, unless other techniques are agreed with the Environment Agency or LLFA, where relevant.	Engagement with the drainage authorities for works in or around any ordinary watercourse is provided for in the draft DCO (DCO application ref 3.1) through the Protective Provisions at Schedule 14, Part 3 for the protection of drainage authorities.	discussions as to the content of the Protective Provisions themselves. Issues surrounding Environmental Permitting requirements and WFD Assessment would be subject to approval by the Environment Agency who are the regulating authority.
RDWE025	Drainage design would include a treatment train for highway runoff designed in accordance with DMRB CD 501 and CD 532 to meet the requirements specified for each outfall to surface watercourses identified in Appendix 14.3 of the ES.	<p>There is no commitment to produce the Sustainable Drainage Strategy and comply with it. Consideration should also be given to local design requirements and use of Chapter 26 of the CIRIA SuDS Manual C753 Simple Index Approach to demonstrate delivery of the necessary water quality requirements. A greater commitment to use Open SuDS features, integrated into the landscape to deliver water quality requirements as these provide additional amenity and biodiversity benefits should be considered.</p> <p>The proposed SuDS measures incorporated into the preliminary drainage design are described in Part 7 of the Flood Risk Assessment (ES Appendix 14.6). The open features of this design will be delivered at the locations indicated on the Environmental Masterplan (ES Figure 2.4). These features include infiltration basins and surface water attenuation basins incorporating wetlands and sediment forebays and are integrated into the landscape design. Detailed assessment has been undertaken to demonstrate that the SuDS treatment trains achieve the necessary water quality treatments as presented in (ES Appendix 14.3). These assessments will be supplemented by application of the more simple CIRIA C753 SIA, to corroborate the findings.</p>	<p>We would require further detail to be submitted at the detailed design stage, demonstrating that the SuDS strategy meets all of the LLFA's requirements. Provided we have enough confidence that opportunities will be taken further down the line to enhance the SuDS strategy (i.e. In detailed design) then we would not object to the statement provided (i.e. this does accurately reflect the current outline requirements for the SuDS provision). However, if the statement is intended to suggest that no further work will be done on enhancing SuDS provision within the scheme, beyond the outline proposal then we would raise objection to this. [LS]</p> <p>The notes state: 'SuDS features...are integrated into the landscape design' however, the plans seen show generally engineered ponds with steep side slopes with limited integration.</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		<p>We are largely satisfied that issues surrounding water quality are being addressed, however we would suggest that the REAC wording is amended to better reflect the agreed assessment methodology that includes both the HEWRAT and CIRIA SiA assessment. We would recommend this item is updated to RED until such time as the wording has been reviewed and updated. Once details have been received and these are found to be acceptable, we will look to update this to GREEN. Issues surrounding Environmental Permitting requirements and WFD Assessment would be subject to approval by the Environment Agency who are the regulating authority.</p>	
PH001	<p>Construction works would be planned in order to reduce the durations of time which footpaths, cycleways and bridleways will need to be closed.</p> <p>For those PRoW identified in ES Tables 13.48 and 13.50, the following mitigation measures would be adopted:</p> <p>a. Early engagement with members of the public and relevant stakeholders (for example, local walking groups), in order to ensure they are fully appraised of any closures and diversions as far in advance as practicable;</p>	<p>General comments</p> <p>The commitments in the REAC need to extend into the operational and maintenance periods of LTC and not just the construction period.</p> <p>Transport</p> <p>This commitment must specify the period of advance notice prior to implementing the closures and diversions and the mechanism for those notices. A minimum of four weeks' notice of closures and diversions is suggested.</p> <p>The REAC does not include any definition as to the implementation or strategy for the NMU network mitigation package to accompany the Project and the subsequent operation and maintenance of that infrastructure. The details of the NMU network are not set out, such as the materials to be used and the configuration of the routes - e.g. widths, subdivision between bound and unbound surfaces etc.</p>	<p>The Council agrees that the construction phase impacts (severance, temporary closures, etc.) should be treated separately to the proposed mitigation and enhancement proposals within the REAC. There is still a need to clarify which routes will be closed/diverted and for how long. Temporary for the scheme could be up to 7 years. How will closures be phased etc?</p> <p>Will construction works be planned so that not all PRoWs are closed/diverted at the same time, so as to provide residents with alternative walking/cycling routes, even if their usual ones are closed, throughout the</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	<p>b. Clear and concise signposting would be used in order to clearly outline any temporary diversions as and when they are necessary. This would be carried out in consultation with the local highways authority, PRow officers and other relevant stakeholders; and</p> <p>c. Social media would be used in order to update members of the public in real time of any closures and diversions which are in place.</p>	<p>The mitigation strategy to address the transport impacts of the construction, operation and maintenance periods for the Project - such as fear and intimidation, safety, driver delay and disruption are not proposed by Highways England to be set out in the ES and as such the mitigation strategies are not committed to within the REAC. It is therefore not possible for the Council to comment on the transport and travel related mitigation proposals that should accompany the construction, operation or maintenance of the route - such as: junction and link mitigation during construction and operation, proposals to reduce severance for walking and cycling, the management of workforce travel; incident management; the management of maintenance periods, etc. These matters will need to be consulted upon in due course.</p> <p>Health</p> <p>The commitments do not specifically reference legacy benefit such as the potential for positive impacts on population and human health as a result of improved and enhanced open space and recreational provision (which will support a high quality residential environment and provide a valuable amenity resource to surrounding residential areas). Para 5.162 of the NPSNN states 'access to high quality open spaces and countryside and opportunities for sport and recreation can be a means of providing necessary mitigation and/or compensation requirements' but there is no specific reference to this element. Further details required.</p> <p>In relation to commitment point C, this refers to social media but should also highlight how comm's will be</p>	<p>construction period? Further clarification required.</p> <p>The Council acknowledges that there is ongoing engagement on the Outline Traffic Management Plan for construction (oTMPfc) and that document may include fuller commitment by HE to the management of temporary effects on PRow's and other walking, cycling and horse riding routes. The time periods for notification and the mechanisms for ongoing engagement should be indicated and committed to in the CEP and linked across through the oTMPfc and CoCP.</p> <p>The Council continues to be concerned that the effects of the scheme on local traffic (including all vulnerable users) is not assessed within the Environmental Statement for either the construction period or the operational phase. For example, there is no assessment of the impacts on severance, fear and intimidation, delay, safety or dust and emissions. As such there is no mitigation proposed other than the proposals for rerouting paths and the conformity to safe working practices (e.g. Traffic Signs Manual Chapter 8</p>



REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		<p>managed to ensure communities are kept informed (especially hard to reach communities).</p> <p>The commitment here is specific to the construction period to reduce disruption when PRoW need to be temporarily closed. The commitments presented here will be worked up in more detail within the environmental management plan to be prepared in accordance with Requirement 4 of the DCO (DCO application ref 3.1) in consultation with relevant local planning authorities.</p> <p>The provision of PRoW in the operational phase is embedded into the design, as described in the Design Principles (DCO Application Document 7.4) and need not be duplicated in the REAC.</p> <p>There is a lot of text in these proposed commitments across a range of related issues which would benefit from a discussion first. A lot of these proposed commitments would not sit in the REAC as the ES doesn't depend on these items as mitigation. It should be noted that a lot of these commitments will have detail added during detailed design/CTMP stage, which would look at details like notice of closures, diversions etc.</p> <p>The Environmental Masterplan (ES figure 2.4) shows all the NMU routes the project is going to provide as part of the Project. Table 3.1 and Table 3.3 of the Design Principles (DCO application ref 7.5) provides further details around the design objectives and specifications of the proposed NMU routes. A lot of the detail Thurrock Council are after will be developed at the detailed design stage. Further discussions are currently ongoing internally</p>	temporary traffic management measures).



REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		<p>about giving Thurrock council more control over these secondary consents</p> <p>The CoCP (DCO application ref 3.1, chapter 4) outlines LTC's approach to community engagement during the construction phase. We have committed to a Communications and Engagement Plan (CEP), which will be developed with the Local Authorities and cover communications, reporting metrics, programme of activities and communicating with target audiences/ hard to reach groups. The CEP will provide a detailed programme of community engagement, setting out how relevant planning authorities, communities, stakeholders and affected parties will be engaged with throughout the construction period. It will specify stakeholders, communities and affected parties (such as schools, places of worship, businesses and environmental organisations) and for each group, identify the proposed methods and likely timing of consultation for each key stage of work. The CoCP also includes commitment to community liaison groups, a helpline and notice of works (currently set at 2 weeks). LTC are now preparing an outline framework travel plan which would focus on management of workforce travel. What specific commitments would Thurrock Council like to see related to incident management and management of maintenance periods?</p> <p>Legacy benefits such as result of improved and enhanced open space needs further discussion before specific commitments can be discussed.</p>	

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AQ001	<ol style="list-style-type: none"> <li>1. All on-road heavy vehicles would comply with the standards set within the London Low Emission Zone (LEZ)</li> <li>2. All Non-Road Mobile Machinery (NRMM) net power 37kW to 560 kW would comply with the engine emission standards set by London's Low Emission Zone for NRMM across all sites in Greater London, Essex and Kent. From 1st September 2020, NRMM used on any site would therefore be required to meet emission standard Stage IIIB as a minimum. From 1 January 2025, NRMM used on any site would be required to meet emission standard Stage IV as a minimum.</li> <li>3. Ensure all vehicle engines, mobile and fixed plant stationed on site are not left running or idling unnecessarily</li> <li>4. Use low emission vehicles and plant fitted</li> </ol>	<ol style="list-style-type: none"> <li>1. The London LEZ will require HDVs to be Euro VI compliant from 1st March 2021 (current implementation date) or pay a daily charge-confirmation required that LTC intend to meet the 'emissions standards' and not pay the charge.  This commitment means that that on-road HDVs utilised on LTC shall be of a euro VI emissions standard.</li> <li>2. Whilst use of portable diesel generators should be minimised, confirmation required that any generator plant will be Stage V compliant as per the London NRMM LEZ. The use of diesel or petrol powered generators should be reduced, by using mains electricity or battery powered equipment where reasonable and practicable.  Any NRMM used on the LTC scheme will be compliant with the standards required for the London NRMM Low Emission Zone. Those standards applicable to the 'Greater London' zone (rather than the Central Activity Zone or Opportunity Area) will be adhered to.  With regards to generators, the GLA NRMM Practical Guide states that "Constant speed engines (such as those in generators) are required to meet emission Stage V across the whole of London from 1st September 2020. At present, the supply of Stage V equipment is limited and retrofit solutions bringing machinery from Stage IIIA to Stages IV and V are being developed. Therefore, the GLA will continue to manage requests for exemptions on a case by case</li> </ol>	<p>Use of electric/hybrid vehicles where practicable has not been included in the mitigation measures. It would be useful to have clarification on the rationale for not including this.</p> <p>Clarifications welcomed on points 1,2,3 and 5. Commitment to Low Emission Vehicles, i.e. electric or hydrogen is unclear and is required for climate change targets as well.</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	<p>with catalysts, diesel particulate filters or similar devices</p> <p>5. Use ultra-low sulphur fuels in plant and vehicles</p> <p>6. Keep vehicles and plant well maintained, with routine servicing to be completed in accordance with the manufacturer's recommendations and records maintained for the work undertaken</p>	<p>basis for Stage IIIA constant speed engines, until such time when Stage V engines and retrofit solutions become available.". LTC will adhere to the Stage V standard where equipment is available (considering the the extant limited supply).</p> <p>3. Unnecessary idling is an unenforceable term and would need to be defined. Highways England should define ""unnecessarily"" in reference to engine idling. The definition should include idling only necessary for the safe operation of that vehicle or for the purpose of maintaining the integrity of the vehicle's load (e.g. ready mix concrete).</p> <p>Whether construction equipment is considered to be idling depends on the task being undertaken and will be different for plant and vehicles and therefore a one size fits all approach would not be practical. The GLA SPG (para 5.18 ) on The Control of Dust and Emissions during Construction and Demolition does not define idling explicitly but states 'Generally, if a vehicle is stationary for more than a minute, turning off the engine will reduce emissions and fuel costs.' It is therefore in the interests of the contractor to avoid idling.</p> <p>4. Unclear commitment. What is a low emission vehicle and DPF are required on on-road and NRMM meeting the emission standards already proposed. Does this relate to barges. Opportunities to use non-fossil fuelled vehicles should be included in the aspirations - such as hydrogen or electric site vehicles and personnel transport.</p>	

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		<p>This is in part applied by enforcing points 1 &amp; 2.</p> <p>5. Use of ultra low S fuels is a regulatory requirement for a vast majority of applications, will this also apply to barges?</p> <p>The European Parliament Directive 2009/30/EC limited the sulphur content of fuels used in inland waterway vessels to a maximum of 0.0010% m/m (10 mg/kg) from 1st January 2011. Therefore this applies to any application in the UK that utilises inland vessels. This is noted in the PLA's (2018) Air Quality Strategy Best Practice Guidance: Inland Vessels which applies to traffic on the River Thames.</p> <ul style="list-style-type: none"> <li>▪ The emergence of safe and efficient autonomous transport should be reflected in the aspirations to minimise environmental impacts.</li> <li>▪ The movement of construction traffic around the site should be kept to the minimum reasonable for the effective and efficient operation of the site and construction of the scheme.</li> <li>▪ Site access points should be designed to avoid queuing traffic.</li> </ul> <p>The suggestions provided at the end would be added to the logs and considered internally although the last two points would be covered in the Outline CTMP (and subsequently the detailed CTMPs and Construction Logistics Plans) to be supplied to stakeholders in Feb 2021.</p>	

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
AQ003	<p>Implement good practice controls to reduce dust during works such as:</p> <ol style="list-style-type: none"> <li>1. Cover with topsoil and re-vegetate earthworks and exposed areas including soil stockpiles to stabilise surfaces</li> <li>2. Use a cover such as hessian, mulches or trackifiers, where it is not possible to re-vegetate or cover with topsoil</li> <li>3. Remove the cover systematically during work to reduce exposure of areas that are not being worked on</li> <li>4. Avoid removing thin layer scabbling of concrete from structures by compressed air powered machines, where practicable</li> <li>5. Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless required for a particular process, in which case ensure that appropriate additional control</li> </ol>	<p>Mixing of grout or cement-based materials should be undertaken using a process suitable for the prevention of dust emissions.</p> <p>Keep the number of handling operations for materials to the minimum practicable.</p> <p>These measures would be worked in more detail when the Environmental Management Plan is prepared in accordance with Requirement 4 - subject to approval by SoS in consultation with the relevant planning authorities</p> <p>The two suggestions presented are being discussed internally and will be added to the logs.</p>	<p>Further information about what the appropriate control measures that could be used to prevent escape of dust is required (dust mitigation will be defined later). No information about air quality monitoring during operation and potential mitigation required during this phase. Monitoring needs to be defined but should include real-time monitors at areas of key risk (with set point alarms), with routine reporting.</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	<p>measures are in place to prevent escape</p> <p>6. Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored with suitable emission control systems to prevent escape</p> <p>7. For small supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust</p>		
AQ006	<p>Air quality monitoring would be undertaken during the construction phase of the project to ensure that the mitigation measures effectively control dust emissions. Monitoring would include visual inspections and in some circumstances a programme of dust monitoring may be required. The need for dust monitoring would be determined once a contractor has been appointed based on the likelihood of adverse dust effects occurring at receptors. Should dust monitoring be required the location of monitors and the type of</p>	<p>This should not be called 'air quality monitoring' and is 'dust monitoring'. The AQ ES Chapter concludes that with mitigation there would not be adverse effects and no monitoring required; however this appears to indicate that there might be a need 'based on the likelihood of adverse dust effects occurring'. This is contradictory and either appropriate mitigation has been identified, or there will be adverse effects requiring monitoring.</p> <p>Inspection procedures relating to the level of trafficking, use and condition of haul routes.</p> <p>Operational air quality monitoring is stated to not be required in ES Chapter 5 Air Quality Section 5.8 (Application Document 6.1).</p>	<p>This should not be called 'air quality monitoring' and is 'dust monitoring'. The AQ ES Chapter concludes that with mitigation there would not be adverse effects and no monitoring required, however, this appears to indicate that there might be a need 'based on the likelihood of adverse dust effects occurring'. This is contradictory and either appropriate mitigation has been identified or there will be adverse effects requiring monitoring.</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	monitoring, would be submitted in advance to the relevant local authorities. Monitoring would begin at least three months prior to the commencement of the construction works to allow a suitable pre-construction baseline to be established unless otherwise agreed by Highways England in consultation with the relevant local authorities.	<p>REAC ref. AQ0006 refers to air quality monitoring during construction to ensure the mitigation measures proposed are effectively controlling dust emissions.</p> <p>The contractor would develop this programme in consultation with the Council as part of EMPV2 secured by Requirement 4 of the Draft DCO (DCO application ref 3.1). The expectation is that visual inspection will generally be adequate - but if quantitative dust monitoring is needed by exception then it will be undertaken. Note: This is dust monitoring, as AQ001 sets out that all construction machinery would be to the comply with the standards set within the London Low Emission Zone etc so we wouldn't need to monitor against construction traffic.</p> <p>Last point to be added to the logs and discussed internally.</p>	
CC002	The Contractor(s) would identify and implement opportunities to reduce GHG emissions below the baseline emissions presented in the Project's carbon model within Appendix 15.1: CEP (Application Document 6.3).	<p>As the Council is yet to receive Appendix 15.1, further detail should be provided here on how the Contractor(s) would implement measures to reduce emissions during the construction of the scheme, for example through specification of recycled or low-carbon materials and the management and minimisation of energy use. Targets for greenhouse gas emissions from the increased volume of traffic should be specified and complied with during construction.</p> <p>This Appendix is now available within the DCO application documentation (Application Document 6.3).</p>	The updated wording 'the contractor would develop and achieve a carbon reduction target to be agreed by Highways England' is welcomed. An incentive for more ambitious carbon reduction targets should be included if possible, e.g. through the procurement process and award of contracts, to strengthen this commitment and ensure innovation. Clarity is needed on how LTC targets will relate to HE 'net zero highways' targets, including by 2025 - '0-10% reduction in maintenance and construction

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		REAC (ES appendix 2.2) items CC001 and CC002 provide a commitment for the contractor to achieving and report reductions in greenhouse gas emissions during the construction phase.	emissions compared to 2020 and by 2030- '40-50% reduction in emissions compared to 2020' for maintenance and construction.
CC003	The Contractor(s) would quantify and report GHG emissions quarterly to Highways England in line with the requirements of DMRB LA 114 Climate (Highways England 2019). This information would be evaluated by Highways England and used to inform assessment of future projects.	<p>Targets for greenhouse gas emissions from the increased volume of traffic should be specified and complied with during construction.</p> <p>Estimated emissions from traffic during the construction phase are reported in the Carbon and Energy Plan (ES Appendix 15.1, Annex A, DCO Application Document 6.3).</p> <p>REAC (ES appendix 2.2) items CC001 and CC002 provide a commitment for the contractor to achieving and report reductions in greenhouse gas emissions during the construction phase.</p>	<p>How will these assessment be used to inform and reduce emissions arising from the LTC?</p> <p>The scope of the quarterly reports and the carbon emissions that should be reported should be clarified - will this include emissions from all construction activities as per the ES chapter, i.e. embodied carbon in raw materials, water demand, construction traffic, plant and equipment, waste, land clearance.</p>
CC004	The Contractor(s) would procure renewable electricity suppliers to cover the consumption from the Project's construction compounds (including the consumption of the tunnel boring machine and concrete batching plant).		<p>Where will this renewable energy be sourced from?</p> <p>Wording needs to be updated to reflect flexibility for contractors and the potential to source from on or near-site renewable energy generation for construction compounds, i.e. there's an option for contractors to directly generate where feasible/ viable and/or purchase renewable electricity through REGO (Renewable Energy Guarantee of Origin).</p>



REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
CC005	The road operator would provide quarterly GHG emissions returns and analysis to Highways England during the operational phase in accordance with the requirements of DMRB LA 114 Climate (Highways England 2019, or as updated). This information would be evaluated by Highways England and used to inform assessment of future projects.	<p>In addition to the measures included in the REAC, the Council would expect to see a commitment to improve the resilience of the scheme to future climate change. The could be through a range of design and material specification measures, including the use of construction materials with properties such as increased tolerance to fluctuating temperatures. Targets for greenhouse gas emissions from the increased volume of traffic should also be specified and complied with during construction.</p> <p>This is provided for in REAC (ES Appendix 2.2) item CC006: The Contractor(s) would design the permanent works in accordance with the design standards identified in Table 2.1 and 2.2 in ES Appendix 15.3 (Application Document 6.3) and use construction materials and products that would be resilient to the effects of projected future climate change in line with UKCP18.</p>	Wording should be expanded 'this information would be evaluated by Highways England and used to inform assessment of future projects' AND to inform the implementation of measures to reduce LTC road user emissions to support and deliver HE 'net zero highways' targets.
CC006	The Contractor(s) would design the permanent works in accordance with, relevant design standards and use construction materials and products that would be resilient to the effects of projected future climate change in line with UKCP18.		<p>Table 2.1 and appendix 15.3 in application document 6.3 – these measures are not considered adequate?</p> <p>This remains an outstanding query. It states that 'The Contractor(s) would design the permanent works in accordance with, relevant design standards and use construction materials and products that would be resilient to the effects of projected future climate change in line with UKCP18'. What would this look like? How will this be used to safeguard</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			health, now and in the future? These measures are not considered adequate?
CH001		<p>Little consideration of cultural heritage appears to have been given in comparison to the detailed consideration given to other environmental factors within the REAC.</p> <p>Little consideration of cultural heritage appears to have been given in comparison to the detailed consideration given to other environmental factors within the REAC. The submitted REAC only comprise two issues which are exceedingly general and provide no guidance to either the Inspector or future bidders for the contract. At present this document only covers the archaeological mitigation strategy and outline WSI with the second relating only to cultural heritage management plans for assets that remain within Highways England ownership at the end of the project. It is recommended that there needs to be much more explicit detail on the heritage requirements.</p> <p>Below are suggested separate additional actions relating to north of the Thames which should be considered for the REAC. These are based on the present understanding of the scheme and its impact with potentially further ones to be added as further information becomes available.</p>	Notwithstanding the comments opposite, this has significantly improved with a range of REAC issues identified rising from 1 to 8 sections.
CH NEW	CH Comments	Excavation strategy and mitigation requirements for the Scheduled cropmark complex at Orsett including those areas that at present are not designated (This needs early discussion with Historic England and Place Services)	Now CH003 which fulfils the original recommendation in May. However, it is our view that as this is a nationally designated Scheduled Monument it should be excavated under a separate

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			document from that of the AMS-OWSI, which has been specifically agreed by the Secretary of State. The commitment is fully supported but the achievement criteria should be altered so that this relates to a separate WSI just for this site.
CH NEW	CH Comments	Detailed requirements for the demolition, recording and other potential mitigation measures of the listed buildings identified for demolition as part of the scheme (This needs early discussion with Historic England and Place Services).	This is now covered by CH004 which details the need for Level 4 Historic Building Recording for the three Grade II listed buildings proposed for demolition.
CH NEW	CH Comments	Enhancements to the setting of heritage assets such as Orsett Causeway enclosure and the impact of the proposed compound.	Largely covered within CH007 although this is more of a general commitment.
CH NEW	CH Comments	Mitigation strategy should be integrated into the long term overall management of Coalhouse Fort, East Tilbury Battery and Bowater Farm. Ensuring landscape improvements/off setting are beneficial to the designated assets just outside the land take area.	The original recommendation here is now being looked at through the legacy process.
Table 7.1 – Pre-Commencement REAC Table, pages 53-58 - NV002 – noise and vibration plan, page 54	A Noise and Vibration Management Plan (NVMP) or equivalent would be prepared for each part of the construction works subject to Section 61 control for consideration by the relevant planning authority.		New comment added for updated REAC (June 2021) - What will this plan look to entail in terms of protecting human health? How often will it be reviewed and updated?
Table 7.1 – Pre-Commencement	Best Practicable Means as defined under Section 72 of		New comment added for updated REAC (June 2021) - the list of best

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
REAC Table, pages 53-58 - NV007 – best practicable means, page 55	<p>the Control of Pollution Act 1974 would be employed during the construction phase to reduce noise nuisance. These would include measures such as: -installing and maintaining hoarding around the construction areas likely to generate noise-keeping site access routes in good condition with condition assessments on site to inspect for defects such as potholes -turning off plant machinery when not in use-maintaining all vehicles and mobile plant such that loose body fittings or exhausts do not rattle or vibrate-using silenced equipment where available, in particular silenced power generators and pumps-no music or radios would be played for entertainment purposes outdoors on-site-plan site layout to ensure that reversing is kept to a reasonably practicable minimum. Reversing manoeuvres, that are required would be managed by a trained banksman/vehicle marshal to ensure they are conducted</p>		<p>practicable measures appears to be fairly comprehensive, however, we would ask that consideration is paid to ensuring idling is prohibited alongside use of greener, cleaner vehicles which would help to alleviate some of the impacts on air quality, noise and climate and ultimately human health</p> <p>Furthermore, where construction techniques to develop the project that reduce noise aren't possible, what other mitigation measures will be employed to reduce potential negative impacts?</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	safely and concluded quickly-non-percussive demolition techniques would be adopted where reasonably practicable to reduce noise and vibration impact.		
Table 7.2 – REAC Table – AQ001 – vehicle and pant emissions, page 59	<ol style="list-style-type: none"> <li>1. All on-road heavy vehicles would comply with the standards set within the London Low Emission Zone (LEZ) across all sites within Order Limits for the relevant class of vehicle.</li> <li>2. All Non-Road Mobile Machinery (NRMM) net power 37kW to 560kW would comply with the engine emission standards set by London's Low Emission Zone for NRMM across all sites within Order Limits. From 1 September 2020, NRMM used on any site would therefore be required to meet emission standard Stage IIIB as a minimum. From 1 January 2025, NRMM used on any site would be required to meet</li> </ol>		New comment added for updated REAC (June 2021) - noted from points above that this section of the table does mention use of low emissions vehicles wherever possible and compliance with 'London low emission zone across all sites within the order limits for the relevant class of vehicle' – in relation to points above on this topic – think this should be clearer and more consistent throughout the REAC.

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	<p>emission standard Stage IV as a minimum.</p> <p>3. Ensure all vehicle engines, mobile and fixed plant stationed on site are not left running or idling unnecessarily.</p> <p>4. Use low emission vehicles and plant fitted with catalysts, diesel particulate filters or similar devices where reasonably practicable.</p> <p>5. Use ultra-low sulphur fuels in plant and vehicles where reasonably practicable.</p> <p>6. Keep vehicles and plant well maintained, with routine servicing to be completed in accordance with the manufacturer's recommendations and records maintained for the work undertaken.</p>		
Table 7.2 REAC Table – AQ005 – Dust management, good practice, page 61	<p>1. Undertake on-site and off-site inspections to monitor dust</p> <p>2. Plan site layout so that machinery, stockpiles, mounds and dust causing activities are located</p>		New comment added for updated REAC (June 2021) - what about PPE for workers to reduce/minimise their exposure to dust and particulates and in turn to protect their health and wellbeing? This needs to be more clearly stated as although it is

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	<p>away from receptors, as far as this is reasonably practicable</p> <p>3. Erect suitable solid screens or barriers around dusty activities or the site boundary</p> <p>4. Avoid site runoff of water or mud</p> <p>5. Remove waste materials that have a potential to produce dust from site as soon as reasonably practicable</p> <p>6. Cover, seed or fence stockpiles to prevent wind whipping</p> <p>7. Cutting/grinding/sawing equipment to use water as dust suppressant or suitable local extract ventilation</p> <p>8. Ensure an adequate water supply on the site for effective dust/particulate matter suppression, using recycled water where reasonably practicable</p> <p>9. Use enclosed chutes, conveyors and covered skips to reduce escape of dust</p>		<p>assumed to be case, it appears to be omitted from the REAC.</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	<p>10. Reduce drop heights from conveyors, loading shoves, hoppers and other loading or handling equipment to a practical minimum and use fine water sprays on such equipment where appropriate</p> <p>11. Ensure equipment is readily available on site to clean any spillages and clean up spillages as soon as reasonably practicable after the spill is identified</p> <p>12. Reuse and recycle waste to reduce dust from waste materials</p>		
Table 7.2 – REAC Table – CC002 – Climate, page 63	The Contractor would develop and achieve a carbon reduction target to be agreed by Highways England.		New comment added for updated REAC (June 2021) - the REAC table states that greenhouse gas emissions: reduction from the carbon model baseline. How will the carbon model baseline data be collected, analysed and determined, and by who? Further clarification required.
Table 7.2 – REAC Table – CC004 – Greenhouse gas emissions:	CC004 - The Contractor(s) would procure electricity from renewable electricity suppliers to cover the consumption from the Project's construction		New comment added for updated REAC (June 2021) - if the intention is to use renewable energy (which we support in terms of climate change and human health), will this be taken from



REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
compound electricity, page 63 and CC007 – greenhouse gas emissions: operational supply of electricity, page 64	<p>compounds (including the consumption of the tunnel boring machine and concrete batching plant).</p> <p>CC007 - Electricity used for operation of the Project would be procured from renewable electricity suppliers."</p>		local energy supply sources and if so how will the potential negative impacts on supply for local residents be monitored and mitigated against, as needed? Further clarification required.
Table 7.2 – REAC Table – GS025 – northern tunnel entrance compound: ground gas, page 72	Accommodation and welfare facilities are proposed within the Northern tunnel entrance compound which would service the North Portal construction activities. Ground gas associated with the historic landfill sites which may be present in the area could pose a risk to health. Prior to the accommodation being constructed, a gas assessment (investigation and monitoring) would be undertaken in the area to determine the need for appropriate gas protection measures.		New comment added for updated REAC (June 2021) - the REAC states that there is recognition that ground gas associated with historic landfill sites could pose a risk to health, especially as this location is where sleeping accommodation and welfare facilities are proposed for workers. The proposed mitigation is to undertake a gas assessment to determine if gas protection measures are required before construction of sleeping accommodation takes places- will there be ongoing monitoring of gas levels to ensure continual safety for workers, visitors to the site etc? Further clarification required.
Table 7.2 REAC Table – GS026 – Foundation Works Risk	Construction of foundations has the potential to create pollution pathways and mobilise contaminants. The Contractors would prepare a		New comment added for updated REAC (June 2021) - would this Foundation Risk Assessment contain details about the mitigation measures required to protect and protect health

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
Assessment, page 73	foundation risk assessment report during detailed design specific to structures and ground conditions. This would be submitted to the Environment Agency for review prior to commencement of that part of the works to which the report relates.		and wellbeing? Further clarification required.
Table 7.2 – REAC Table – LV002 – Land reinstatement and LV003 – Landscape maintenance, pages 76-77.	<p>LV002 - Land temporarily impacted by works to divert utilities would be reinstated to its former condition and composition upon completion, as far as reasonably practicable, unless otherwise specified in the Environmental Master Planner under the terms of article 35 of the dDCO which sets out the temporary possession powers.</p> <p>LV003 - The first five years of vegetation establishment would be overseen by an Environmental Clerk of Works. Vegetation that has failed to establish would be replaced as soon as identified within the next available planting season. At the end of the establishment period,</p>		New comment added for updated REAC (June 2021) - how do these fit in with newly announced plans for large woodland (at Hole Farm, Great Warley, Brentwood and running along LTC route)? Is this a legacy benefit? Will this be secured via the DCO? Further information required.

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	subsequent landscape management would be undertaken in accordance with the Landscape and Ecology Management Plan (LEMP)		
Table 7.2 – REAC Table – LV004 – Planting, page 77	Where guards are used to protect seedlings and whips, the use of plastic tree guards would be avoided in favour of biodegradable options where available. In the event that plastic guards are used, these will be removed within five years of installation.		New comment for updated REAC (June 2021) - how will this be monitored to ensure that plastic guards are removed safely and in a timely manner? For example, will there be a log book? It will be important to ensure these guards are removed in a timely way, to reduce build up of litter which could affect visual amenity of places and deter residents from using such spaces for physical activity and to support their mental health and wellbeing. Further clarification required.
Table 7.2 – REAC Table – MW005 – pre-demolition surveys, page 84	During construction it will be necessary to demolish various buildings, concrete structures and steel gantries. Pre-demolition surveys of these structures and buildings would be undertaken. Demolition materials would be identified and quantified including potential sources of recycled aggregate to be reused on site, as well as hazardous materials such as asbestos.		New comment added for updated REAC (June 2021) - will these surveys also inform how demolition will occur safely in the event of contaminated materials and asbestos, to ensure dust and air pollution is reduced and managed to provide protection to the health of workers, and local populations? Further clarification required.

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
Table 7.2 – REAC Table NV008 – Community Engagement, page 90	Residents would be notified of particularly noisy work such as percussive piling and concrete breaking prior to their commencement. The mechanisms for notification will be detailed in the Community Engagement Plan. Effective communication would be established, keeping local residents informed of the type and timing of works involved, paying particular attention to potential evening and night-time works and activities which may occur in close proximity to receptors.		New comment added for updated REAC (June 2021) - what other measures will be implemented to reduce the impacts of noise on local residents, especially where works will take place in the evening/night-time? Additionally, how the project ensure good two-way communication with local communities? Further clarification required.
Table 7.2 – REAC Table – NV010 – Haulage routes, page 90	A maintenance programme which includes inspection of all haul routes and infill of potholes and other surface irregularities would be implemented to reduce noise and vibration		New comment added for updated REAC (June 2021) - the REAC states that there will be a maintenance programme for haul routes during construction. However, the council feel that it would be beneficial to have a similar maintenance programme be implemented on the LTC and adjoining roads during operation.
Table 7.2 – REAC Table – NV011 – Acoustic barriers, page 90	The performance of acoustic barriers would be compliant with the specifications and requirements of DMRB LD119 'Roadside environmental		New comment added for updated REAC (June 2021) - how will effectiveness of these be monitored over time, how often, and who will be responsible for their replacement (includes costs) as needed? What

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	mitigation and enhancement – Appendix A’.		other innovative practices could also be considered to reduce the impact of noise/vibration from the road during operation? Further clarification required.
Table 7.2 – REAC Table – NV013 – Road Surfacing, page 90	A ‘Level 3’, very quiet road surfacing system, as defined by Highways England Specification for Highways Work Volume 1, Series 900, Table 9-17, shall be provided on all new and altered trunk roads and associated slip roads forming part of the Project.		New comment added for updated REAC (June 2021) - how will this be maintained and how often? Who will be responsible for maintenance of the road surface (including costs)? What other innovative practices could be employed to reduce the impact of noise/vibration for residents, particularly in relation to disturbance from noise? Further clarification required.
Table 7.2 – REAC Table – NV014 – Operational fixed service plant at tunnel service buildings, page 90	The noise emitted from operational fixed plant located at the tunnel service buildings shall not result in exceedance of the existing background level by more than 0dB(A) at the nearest residential receptors when assessed in accordance with BS 4142: 2014+A1:2019.		New comment added for updated REAC - how will this be managed? How often will this be monitored? Further clarification required.
Table 7.2 – REAC Table – NV015 – Action in case of noise monitoring	In the event that noise and vibration monitoring (as provided for in NV009) identifies that noise and vibration limits (as provided for		New comment added for updated REAC (June 2021) - the REAC outlines action required in the case of noise monitoring exceedance during the construction stage. How will this be

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
exceedance, page 91	in NV004) have been exceeded, the Contractor shall, at the earliest reasonably practicable opportunity, investigate to confirm that works being undertaken as part of the Project are the source of the noise. If this is confirmed, then the Contractor shall immediately undertake a further review of the best practicable means (as defined under the Control of Pollution Act, 1974) employed for the activity to minimise noise and agree additional or modified mitigation with the relevant local authority unless otherwise agreed with the Secretary of State.		managed and monitored during operation? Further clarification required.
Table 7.2 – REAC Table – PH001 - Population and Human Health, page 91	Construction works would be planned in order to reduce the durations of time which footpaths, cycleways and bridleways would need to be closed. For such Public Rights of Way the following mitigation measures would be adopted: a. Early engagement with members of the public and relevant stakeholders (for example, local walking		New comment added for updated REAC (June 2021) - the mitigation and measures outlined do not really address connectivity and severance issues arising from the project more generally outside of PRoWs. Additionally, use of social media to provide updates to residents may exclude those who are digitally excluded, for example, do not own a computer or mobile phone, have low levels of literacy, first language is other

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	<p>groups), in order to ensure they are fully appraised of any closures and diversions as far in advance as reasonably practicable.</p> <p>b. Clear and concise signposting would be used in order to clearly outline any temporary diversions as and when they are necessary. This would be carried out in consultation with the local highways authority, Public Right of Way officers and other relevant stakeholders.</p> <p>c. Social media would be used in order to update members of the public of any closures and diversions which are in place.</p>		<p>than English, etc. How will Highways England and contractors ensure that such groups/individuals are still kept up to date in terms of diversions/closures of PRow and other relevant information?</p> <p>There is also no mention about restoration of rights of way, promoting connectivity across the borough and reducing severance during operation of the LTC. How will these issues be addressed?</p>
Table 7.2 – REAC Table – TB001 – Hedgerow replacement, page 101	Hedgerow habitat lost during construction would be compensated by creating new hedgerows at locations shown on the Environmental Masterplan, using native species of local provenance. Planting would be undertaken as early in the construction programme as reasonably		New comment added for updated REAC (June 2021) - as per LV032 response (noted above in this document) we would expect the species to be planted to replace veteran trees would be those that are the most effective at absorbing CO2, and other particulates to support the reduction of poor air quality and to support reductions in climate change

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
	practicable, having regard for the completion of potentially damaging construction activities within and adjacent to the planting area, and seasonal requirements for planting.		and their negative impacts on health. This should be based on the latest evidence and best practice. In terms of commencement of planting we would expect this to start before construction begins, for example as part of pre-construction processes to give hedgerows a chance to grow ahead of works supporting visual amenity and reducing the impacts of noise and air pollution.
Table 7.2 – REAC Table – TB007 – Habitat management, page 101	Retained and new habitats would be managed having regard for Natural England's The Mosaic Approach: Managing Habitats for Species (2013) to improve both priority habitats and species.		New comment added for updated REAC (June 2021) - how do these fit in with newly announced plans for large woodland (at Hole Farm, Great Warley, Brentwood and running along LTC route)? Is this a legacy benefit? Will this be secured via the DCO? Further clarification required.
CH NEW	Grade II listed buildings		Record of Baker Street Windmill setting not mentioned.  It is also understood that a record will be made of the setting of Baker Street Windmill (Grade II) to provide an understanding of its setting prior to the proposed road scheme - this will not adhere to the levels set out in the Historic England guidance and its content will need to be discussed and agreed. Discussions have taken place previously regarding the potential to



REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			dismantle, relocate and rebuild Thatched Cottage and Murrells Cottage (timber framed) as part of the mitigation measures.
CH NEW	Grade II listed buildings		Operational phase mitigation.  The Ward Summaries note the control of lighting and other environmental factors (noise, dust, etc.) as part of the mitigation for the impact of the operational phase on the settings of listed buildings, i.e. controlling lighting to better preserve the rural settings of some buildings where appropriate. This should be noted in the REAC.
CC008	Low energy light sources (for example light-emitting diode (LED) or equivalent technology) would be used within Project lighting systems (subject to emergency lighting requirements) to reduce energy consumption during the operation of the Project and offer a more readily recyclable product at the end of life, compared to traditional light source lamps and luminaires	The wording on energy efficiency in relation to lighting is welcomed.	It is proposed that the REAC commitment should be elaborated to provide clarity and ensure that best available technology at the time of installation is incorporated. The luminaires utilised should use high efficiency LED technology, which is the current best in class technology readily used within the industry. Following this, the design should consider the correct number of LEDs within the individual luminaires to ensure that the optimum lumen output is obtained. The optic setting should then be designed to ensure that the light generated is focused on the target area, minimising spill into non lit areas. The correctly

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			designed combination of these three considerations would maximise efficiency through the lighting design.
Cultural Heritage	Further comments (1)	<p>The Council wishes to express its concern with regards to the lack of adequate mitigation measures in regard to cultural heritage.</p> <p>Mitigation for cultural heritage is provided for through REAC (ES appendix 2.2) item CH001 and Requirement 9 of the DCO (ES Appendix 3.1). The draft Archaeological Mitigation Strategy and Outline Written Scheme of Investigation (AMS-OWSI) presented at Appendix 6.9 of the ES (Application Document 6.3) includes details of specifically identified measures to mitigate the impact to known heritage assets and a range of generic mitigation measures from which appropriate mitigation would be applied for currently unknown heritage assets that could be physically damaged by construction. Comments on the AMS-OWSI received from Essex Place Services</p>	
Landscape	Further comments (2)	<p>A commitment should be included to state that the contractor shall replace at least 2-3 trees for every 1 tree removed, especially for veteran trees and areas of lost ancient woodland. An additional commitment for additional woodland should also be considered.</p> <p>REAC (ES appendix 2.2) item LV032 contains a commitment for a minimum of 30 individual specimen trees to be planted as replacement for 10 lost veteran trees. Other relevant REAC commitments include LV030 which provides for protection of veteran trees, ancient</p>	

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		<p>trees and ancient woodland and LV033, which provides for 'veteranisation' pruning.</p> <p>The proposed planting is shown on the EMP (ES figure 2.4). There is no other commitment set out in the REAC relating to additional woodland planting.</p>	
Biodiversity Net Gain	Further comments (3)	<p>Further commitments to include a (15-20%) target to be achieved using the DEFRA net gain calculator.</p> <p>The Project is in line with Highways England's organisational objective to deliver a net gain in biodiversity by 2040.</p> <p>Highways England has committed to achieving no net loss in biodiversity by the end of RIS 2 and will work towards net biodiversity gain by 2040 across its estate. Although the construction of the Project would have significant adverse effects on statutory designated sites and irreplaceable habitats, such as veteran trees and some sections of ancient woodland, the design has sought to provide biodiversity gains wherever possible and this has resulted in a 15% increase in habitat value. An assessment of baseline biodiversity value and that achieved by the Project's design post development is presented within the Sustainability Statement (Application Document 7.12, section 14.2).</p> <p>Noted. This is more relevant to the ES &amp; EMP etc and is subject to ongoing discussion as new elements (e.g. Tilbury Fields) come forward.</p>	

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
Terrestrial Biodiversity	Further comments (4)	<p>A commitment regarding the water vole habitat creation to the west of Coalhouse Fort and the need to reinstate the sea wall along that area in order to prevent saline ingress and facilitate the habitat is required.</p> <p>TB016 provides a commitment for provision of appropriate habitat for translocation of protected species, including water voles, which would be secured by means of Conservation Licence for water voles from Natural England.</p>	It is understood that this site will no longer be used for water vole so salinity will not be an issue for the proposed habitat.
	Further comments (5)	<p>There should be a commitment to include 'embodied carbon from use of materials' within the construction needs and specific targets to achieve during construction.</p> <p>REAC (ES Appendix 2.2) Items CC001 and CC002 provide for compliance with PAS 2080 and reductions in GHG emissions from the baseline presented in the Project's carbon model.</p>	
HRA and Road Drainage and Water Environment	Further comments (6)	<p>A new commitment should be included relating to undertaking continuous groundwater monitoring during construction. Highways England should commit to having a range of mitigation strategies available and confirm that an appropriate strategy would be employed if effects/impacts are identified, in consultation with Natural England, the Council and other appropriate authorities.</p> <p>The HRA screening report concludes that there would be no likely significant effects from changes in groundwater on the Thames Estuary and Marshes Ramsar. The Ramsar habitats are not groundwater dependent and the impact of the project on groundwater under the site would</p>	

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		be inconsequential. There is no pathway to a groundwater effect on any other European site. There is thus no need to monitor groundwater because there is certainty that there would be no likely significant effects on habitats at this site relating to groundwater. Natural England has been consulted on this and have not commented on this conclusion.	
Skills and Employment	Further comments (7)	<p>No direct reference to the economy or local employment/skills commitments or the Skills and Legacy Plan.</p> <p>This measure is not specifically related to the ES or the REAC. However, this issue already exists on the logs and is being progressed. See response to the SEE strategy.</p>	
Multiple Topics	Further comments (8)	<p>The Council would expect the following to be committed to in the REAC:</p> <ul style="list-style-type: none"> <li>▪ Mitigation in relation to the open space replacement.</li> <li>▪ Mitigation in relation to the environmental impacts on the traveller site.</li> <li>▪ Environmental commitments to ensure multimodal use of transport for construction workers.</li> <li>▪ Commitments on working hours for the construction period (these are currently too long)</li> <li>▪ Commitments for contractors to be using sustainable materials and minimise plastics and harmful substances</li> <li>▪ Commitments for the provision of welfare facilities and exactly what these contain</li> <li>▪ Use of low emission vehicles and HGVs</li> </ul>	

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		<ul style="list-style-type: none"> <li>▪ Mitigation in relation to green infrastructure for visual, noise and AQ impacts.</li> <li>▪ Commitment to Green Bridges with WCH links/connections</li> <li>▪ Mitigation in relation to the open space replacement is secured via the Environmental Masterplan (Application Document 6.2 ES Figure 2.4).</li> <li>▪ Mitigation in relation to the traveller site is embedded into the design are described at Clause S11.12 of the Design Principles (DCO Application Document 7.5). More topic specific mitigation i.e. air quality or noise will be listed in the individual chapters or in the REAC under those headings.</li> <li>▪ Commitments related to ensure multimodal use of transport is covered broadly in the CoCP (Application Document 7.11) section 5.1, but will be discussed further at a construction specific meeting with the council.</li> <li>▪ Commitments in relation to working hours are presented in the CoCP but will be discussed further at a construction specific meeting with the council. LTC are also considering the approach to working hours as listed in the Hatch Report</li> <li>▪ Numerous commitments are made in the REAC in relation to material selection e.g. CC001, MW001 and MW002.</li> <li>▪ Provision of welfare facilities in which location?</li> <li>▪ AQ001 requires compliance with LEZ standards</li> </ul> <p>Commitments relating to green infrastructure including green bridges and WCH connections are considered to be 'embedded mitigation, integral to the design. These are explained in various sections G143 'Response - REAC</p>	

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		OLD' throughout the Design Principles (DCO Application Document 7.5, notably Table 3.1, Table 3.3 and STR.08).	
Health	Further comments (9)	ES paragraph 13.5.26 states the project will utilise a broad range of techniques as outlined in the LTC Health, safety, security and wellbeing strategy (LTC CASCADE 2020). The Council is still unclear what mitigation is included in this strategy. This should be set out in the REAC.	
Air Quality	Further comments (10)	<p>A commitment should be included to ensure air quality monitoring is undertaken at agreed locations for a specified period after completion (i.e. during operation), even though no significant effects have been identified from traffic modelling. The locations and time period should be agreed in consultation with the Council.</p> <p>The Project does not require mitigation for operational air quality effects, therefore in line with the advice of DMRB LA 105, air quality monitoring is not required during operation.</p>	
Noise and Vibration	Further comments (11)	<p>Noise barriers - there is no commitment to the noise reduction specifications these should incorporate, the need to monitor their effectiveness and commit to upgrading them if necessary. A new commitment relating to noise barriers should be included.</p> <p>NV011 contains specific commitments in relation to provision of acoustic Barriers:</p> <p>Acoustic barriers, of the dimensions presented in Table 12.30, in Section 12.5 of the Environmental Statement</p>	

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		(Application Document 6.2), would be installed prior to road opening at the locations shown on ES Figure 12.7 (Application Document 6.2). The performance of these barriers would be compliant with the specifications and requirements of DMRB LA 119 'Roadside environmental mitigation and enhancement – Appendix A'.	
Air Quality	Further comments (12)	<p>Health general AQ comment - HE are not proposing any monitoring during the operational phase. We encourage HE to do so for residential areas of impact and to provide quarterly analysis to provide reassurances.</p> <p>This appears to have been addressed in part in the updated REAC. Highways England state that:</p> <p>'If required during construction, continuous particulate monitoring for PM10, PM2.5 and TSP (total suspended particles) will be carried out using appropriate survey instruments at locations approved under REAC item AQ006, in consultation with the relevant local authority. Instruments will be set up at relevant sites to operate an alert system when a predetermined site action level approved by the Secretary of State in consultation with the relevant local authority, is reached. If the alarm is triggered, the following actions will be taken:</p> <ol style="list-style-type: none"> <li>The Contractor, or a delegated representative, shall at the earliest reasonable opportunity, investigate activities on the site to ascertain whether any visible dust is emanating from the site or activities are occurring that are not in line with dust control procedures.</li> <li>Any identified causes will be rectified, where reasonably practicable. Actions will be recorded in a</li> </ol>	This remains as the monitoring during operation of the project has not yet been addressed.



REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		<p>site logbook and the relevant local authority notified of the event and actions by telephone or email, as soon as is reasonably practicable, after or during the dust event.</p> <p>c. If no source of the dust event is identified, other project sites and local authority or Automatic Urban and Rural Network monitoring sites will be contacted to establish whether there is an increase in particulate concentrations in the wider area.</p> <p>d. If the cause of the alert is not related to site operations, the outcome of any investigation will be recorded in a site logbook which would be made available to the relevant local authority on request.</p> <p>e. Dust monitoring will continue until that part of the construction works has been completed, or earlier, if the site is deemed to be low risk in consultation with Highways England and the relevant local authority.</p>	
REAC as a whole	Further comments (13)		<p>New comment added for updated REAC (June 2021) - there is no mention of commitments to mitigate/enhance the cumulative effects (either intra-related/inter-related) of the LTC? Such potential effects could have a significant negative impact on residents' health and wellbeing through increased noise, air pollution, particularly in areas where there are high levels of deprivation, and poor health, such as Tilbury. Highways England should ensure that cumulative effects are included and</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			sufficiently assessed and mitigated against as required.
Geology and Soils	Further comments (14)		As the stability hazards are not considered to have been adequately identified and those that have been identified have not been eliminated it is assumed that further GI and probing will required to advance the knowledge regarding the presence/absence of the hazards and implications for the design. This should be captured in the REAC as an additional Geology and Soils measure to be implemented (currently additional GI is only committed to be undertaken in the compounds). (response to ES Appendix 10.1)
Geology and Soils	Further comments (15)		All the PLs in the CSM are identified as still active. A commitment to assess and mitigate all of the sources identified in the preliminary CSM particularly those with offsite HH receptors linkages should be captured in the REAC. (response to paragraph 1.1.11 of ES Appendix 10.3)
Geology and Soils	Further comments (16)		Preliminary remediation options appraisal aims to show that there are remediation techniques available that would be able to meet the general objectives, should remediation be required. Currently the SG 0027

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			commits to the preparation of a remedial strategy. To address the uncertainty and lack of clarity surrounding 'should remediation be required' we request an additional action be added to the REAC to ensure that the Tier 2 risk assessment is completed and all necessary risk mitigation measures including those relating to off-site human health are identified. (response to paragraph 1.3.22 of ES Appendix 10.3)
Geology and Soils	Further comments (17) provided by Thurrock Council		Where are the re-use and waste classification assessment? If these are not yet undertaken we request an additional action be added to the REAC to capture the need to agree the re-use assessment and proposals. (response to ES Appendix 10.3)
Geology and Soils	Further comments (18)		Off-site receptors and the potential for migration of dust and gases to affect human health other than construction workers is not identified as a pollution scenario. An explanation justifying this should be provided which must link to the CSM presented. Unless this justification is accepted REAC GS 0023 and GS0026 will need to be amended to include consultation with the Local Authority to ensure that protection of off-site human health is

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			adequately considered. (response to ES Appendix 10.5)
Geology and Soils	Further comments (19)		There are 212 potential sources of contamination identified - please provide an explanation as to why only the credible sources been considered in this risk assessment. Even a Low hazard potential has some degree of risk and it is considered that this should be reflected in SG 0026 with a commitment to undertake location specific assessments for penetrative works in all of the potential sources of contamination. (response to ES Appendix 10.5)
Geology and Soils	Further comments (20)		Additional GI for the purposes of informing a foundation risk assessment should be captured as an additional Soil and Geology action in the REAC. (in response to paragraph 1.6.4 of ES Appendix 10.5)
Geology and Soils	Further comments (21)		An additional action added to the REAC under Soils and Geology to commit to provision of a summary document capturing where additional GI has been identified as needed and provision of an outline scope of works proposed at each feature/location/issue. (response to ES Appendix 10.7)

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
Geology and Soils	Further comments (22)		6.11.2 of the CoCP identifies that the recommendations of the UXO Report will be implemented by the Contractor - however this is missing a reference and the report title does not accord with the Zetica report. To ensure that the report reviewed and the accompanying recommendations are those to be implemented we request that an additional REAC action under Soils and Geology is added to capture this provision. (in response to ES Appendix 10.9)
Geology and Soils	Further comments (23)		A record summarising where all the proposed DQRA will be undertaken together with a commitment to how the DQRA will be performed and agreement secured. (response to ES Appendix 10.7)
Road Drainage and Water Environment	Further comments (24)		REAC commitments are as historically discussed with the LTC team. Provisions for Culverting, Temporary and Operational drainage, amongst other things are made. As highlighted previously with the LTC team, we would require a detailed 'Construction Surface Water Management Plan' to be submitted to the LLFA for review/ approval for each phase of scheme construction. It is expected that this would be delivered through the Environment Management Plan

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			(EMP), however, exact details of how this will work are not yet available to the LLFA for review.

## 2.2 Summary and Recommendations

2.2.1 Key issues and recommendations identified above by the Council can be summarised as:

### Summary

- i. There is no sequence to the order of REAC topics and it should follow the sequence in the topics within the ES chapters. The REAC document is all mixed up and therefore difficult to follow, e.g. 'GS' on page 53 and then on pages 66-74. There are potential repeats within the REAC document, e.g. TB on Pp55-58 and again with further changes on Pp101-106; and for GS and LS and NV.
- ii. The Council has provided new comments and queries for updated REAC (June 2021) and further comments (1-24 in the table below) on the REAC, which are set out in the table below.
- iii. There are a number of commitments/ detail missing from the REAC, for example, record of Baker Street Windmill setting not mentioned (CH NEW); no direct reference to the economy or local employment/skills commitments or the Skills and Legacy Plan (Further comments (7)); and various others.
- iv. Remaining outstanding information/ issues/ queries and, in some instances, no further adequate information has been supplied from HE in relation to issues previously raised.
- v. Wording in some REAC commitments should be amended to provide clarity/correction.
- vi. REAC commitments could go further to improve conditions/outcomes, for example, including an incentive for more ambitious carbon reduction targets should be included (CC002).
- vii. A number of documents that are listed, where the detail will still need to be finalised for DCOv2, have not been viewed by the Council. These documents will need to be subject to consultation in due course and since they have not yet been, an effective round of consultation has not yet been carried out.
- viii. The detail for many REAC commitments is not yet available and would be considered during detail design. LTC is aware of the comment made by Thurrock Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion. Need to continue to review this, as the position is unchanged.
- ix. There is a need to cross reference some REAC commitments for avoidance of doubt, for example, LV001 and LV028.
- x. The Council continues to be concerned that some issues are not assessed within the Environmental Statement, for example, the effects of the scheme on local traffic (including all vulnerable users) for either the construction period or the operational phase.
- xi. LV029 stated in updated REAC as not used. What is the rationale for this change and its removal?
- xii. Lack of adequate mitigation measures in regard to some commitments, for example, hazardous substances (MW005), use of electric/hybrid vehicles (AQ001) and 'further comments (1)' cultural heritage.
- xiii. Further detail will need to be submitted to the Council at the detailed design stage for many commitments, for example, demonstrating that SuDS Strategy meets all of the LLFA's requirements (RWE025).

## Recommendations

- i. The order of the REAC should follow the sequence of topic chapters in the ES. Remove potential repeats within the REAC document, e.g. TB on Pp55-58 and again with further changes on Pp101-106; and for GS and LS and NV.
- ii. Address the Council's 'further comments' (1-24) on the REAC, which are additional to actions/ recommendations on specific REAC commitments. These comments need to be addressed by HE and provide the Council with further information and/or clarification.
- iii. Ensure that all commitments/ detail that is currently missing from the REAC, are included in the next iteration.
- iv. There is still a need for further information from HE on outstanding information/ issues/queries.
- v. Wording in some REAC commitments should be amended to provide clarity/correction.
- vi. Change and improve REAC commitment wording to help improve conditions/ outcomes.
- vii. Where the detail of documents will still need to be finalised for DCOv2 - the Council will be a consultee and need to review.
- viii. The detail for many REAC commitments is not yet available and would be considered during detail design. LTC is aware of the comment made by the Council regarding visibility/consultation on compound layouts and this is undergoing further internal discussion. Need to continue to review this, as the position is unchanged.
- ix. There is a need to cross reference some REAC commitments for avoidance of doubt, for example, LV001 and LV028.
- x. Ensure that all the right issues are assessed within the Environmental Statement.
- xi. LV029 stated in updated REAC as not used. What is the rationale for this change and its removal?
- xii. HE need to ensure adequate mitigation measures are set out and secured, in regard to REAC commitments.
- xiii. Provide further detail to the Council at detailed design stage for many commitments, for example, demonstrating that SuDS Strategy meets all of the LLFA's requirements (RWE025).



# Lower Thames Crossing

## Review of Schedule 2 Requirements and Explanatory Memorandum

On behalf of **Thurrock Council**



**thurrock.gov.uk**

## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of Schedule 2 Requirements and Explanatory Memorandum

**Doc Ref:** Revision B

**Date:** October 2021

	Name	Position	Signature	Date
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<b>Reviewed and Approved by:</b>	Chris Stratford	Consents and DCO Senior Consultant	<i>CS</i>	September 2021
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<b>For and on behalf of Browne Jacobson</b>				

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A	08/09/2021	Issued to Thurrock Council	<i>BS</i>	<i>CS/BS</i>	<i>CS/BS</i>
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Table 2.1: The Council's Comments on the Schedule 2 Requirements and Explanatory Memorandum3

# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the assessment details for the Schedule 2 Requirements and Explanatory Memorandum.
- 1.1.2 This document sets out the Council's comments on the proposed Schedule 2 Requirements and Explanatory Memorandum and if there are any suitable opportunities to improve this infrastructure.
- 1.1.3 The document follows the same structure as the Schedule 2 Requirements and Explanatory Memorandum and responds only to the sections relating to the north of the river.

## 1.2 Summary and Recommendations

### Summary

- 1.2.1 The requirements in schedule 2 are key element to ensuring the authorised development is undertaken appropriately and minimises any negative impact on local residents and infrastructure. The Council has a number of concerns. These include:
  - i. who is the discharging authority
  - ii. how consultation with relevant planning authorities and highway authorities is undertaken
  - iii. the impact of certain pre-commencement works
  - iv. mechanisms to ensure that key documents can change over time as a response to changes to the highways network and as a result of monitoring
  - v. a limit of the proposed development
  - vi. how 15% biodiversity net gain is going to be secured
  - vii. which documents will be considered 'control documents'
  - viii. the consideration of contaminated land
  - ix. implementation of the relevant EMP
  - x. timeframes for the submission of the LEMP
  - xi. the management of archaeological interests
  - xii. traffic management
  - xiii. the application of the Council's traffic management permit system to the authorised development
  - xiv. the deemed approval in relation to the traveller site
  - xv. compliance with the indicative layout plan in connection with the traveller site, and

xvi. traffic monitoring

- 1.2.2 These are considered in greater detail below. However, it is essential that these points are engaged with, so the ExA has sufficient information to make an informed decision about key aspects of how it is proposed that the authorised development is to be controlled and unnecessary negative consequences avoided.

## 2 Review of Schedule 2 Requirements and Explanatory Memorandum

### 2.1 Comments

Table 2.1: The Council's Comments on the Schedule 2 Requirements and Explanatory Memorandum

Relevant Section in the Schedule 2 Requirements and Explanatory Memorandum		The Council's Comments
<b>Chapter 1: Explanation of Schedule 2 of the Draft Development Consent Order</b>		
1.1	Introduction	
1.1.7	Discharge of requirements	<p>a. It is the Council's position that Requirements 3 (design), 4 (EMP), 5 (landscaping), 8 (surface and foul water drainage at a local level (with the Environment Agency responsible for those elements not at a local level), 10 (traffic management), 11 (construction travel plans), 12 (fencing) and 15 (amendments to approved details) should be discharged by the relevant local planning authority with an appeal to the Secretary of State.</p> <p>b. Whilst it is not uncommon for transport DCOs to have the Secretary of State as the discharging authority, it is by no means universal (see for example the West Midlands Rail Freight Interchange Order 2020, the Lake Lothing (Lowestoft) Third Crossing Order 2020, the Silvertown Tunnel Order 2018 and the Port of Tilbury (Expansion) Order 2019 (Tilbury 2). In addition, the Council are not aware of any other Secretary of State (for example DEFRA, BEIS) being the discharging authority in connection with non-transport DCOs.</p> <p>c. Paragraph 1.1.7 states that the Secretary of State should be the discharging authority due to the complexity of the project and the need for consistency in decision-making. However, this ignores the significant advantage of having locally elected local authorities, who are experienced in discharging similar planning conditions, be the discharging authority. It is precisely because of the complexity of the project that a detailed understanding of the locality, including the local highway network, is required.</p> <p>d. It should also be noted that although there are a number of affected local authorities, primarily the discharging authorities would be the Council north of the river (approximately 80% of the authorised development north of</p>

Relevant Section in the Schedule 2 Requirements and Explanatory Memorandum		The Council's Comments
		<p>the river is within the Council's administrative area) and Gravesham Borough Council/Kent County Council south of the river. It is accepted that changes to local highway sections will need to consider the impact of those changes on trunk road sections (and vice versa), and accordingly it is suggested that the relevant planning authority will discharge requirements in consultation with relevant parties such as Highways England.</p> <p>e. The Council suggest that there should be the ability to appeal to the Secretary of State, in the event that the relevant planning authority refuses consent, or granted subject to unacceptable conditions which Highways England considers to be unacceptable.</p> <p>f. The current proposal, of the Secretary of State being the discharging authority, after consulting the Council, is likely to lead to unnecessary expenditure as the relevant local planning authority will have to commit significant resources to explaining to the Secretary of State the impact of proposals. It would be quicker, cheaper and more efficient for the relevant local planning authority who has the relevant experience to also be the body discharging the requirements. Having the Secretary of State as the discharging authority is contrary to the underlying purpose of the Planning Act 2008, and ultimately is likely to lead to greater expense, and worse outcomes, for the taxpayer.</p>
1.2	Explanation of Requirements	The Explanatory Memorandum explains the effect of a number of provisions. However, as set out in Advice Note 15, further detail should be provided to explain why provisions are important/essential for the delivery of the proposed project. It should also set out the sources of provisions and the section/schedule of the 2008 Act under which it is made.
<b>Chapter 2: Schedule 2 Requirements</b>		
3, 4, 6, 8, 9, 10, 11, 14	Consultation	a. Without prejudice to our earlier comments regarding the appropriate discharging authority, a number of the requirements (as currently drafted) refer to consultation with the relevant planning authority. Please provide details as to what this consultation will entail, for example the time period over which Highways England has to consult with the relevant planning authority and the process that Highways England has to take to resolve any concerns.

Relevant Section in the Schedule 2 Requirements and Explanatory Memorandum		The Council's Comments
		<p>b. Highways England has previously stated that it would work with local planning authorities to ensure that an appropriate amount of time would be provided for consultation. Highways England has resisted fixed and specified time periods for consultation as different matters require different periods for consultation depending on their complexity and nature. Whilst we agree that different matters warrant different periods for consultation depending on the complexity and nature we suggest that minimum or guideline consultation periods are agreed as part of the DCO process.</p>
1	Definition of commencement	<p>The principle of allowing pre-commencement works is not contested by the Council. However, the inclusion of 'diversion and laying of underground apparatus', 'vegetation clearance', and 'erection of temporary means of enclosure' is of some concern. It is important that these works are not carried out prior to protected species survey being undertaken and where protected species are present work ceasing (Requirement 7). It is also important that other requirements such as in relation to contaminated land with archaeological interests apply equally to the authorised development and pre-commencement works.</p>
2	Time limits	<p>a. As we have referenced in previous comments, the authorised development needs to be commenced within five years and will be ongoing for a considerable number of years after that. Within that time there may be major changes to the transport network. To continue working on a project, despite knowing major changes to the transport network will hinder the effective operation of the project, is not in the public interest. We suggest that a mechanism is in place to review key documents and design in the case of major transport network changes. This is especially relevant as we are entering a period when the government is pushing for rapid decarbonisation of the transport network, which may lead to some significant changes.</p> <p>b. We note that you have previously stated that the environmental and traffic assessments are based on a reasonable worst-case scenario. Whilst this is likely to be sufficient in all but exceptional circumstances, it is in our opinion prudent to allow for those exceptional circumstances considering we are entering a time of significant change.</p>
3	Detailed design	<p>a. Previously we have commented on whether departure from the general arrangement drawings can only be within the Order Limits. The response received states that some aspects of the dDCO are outside of the Order</p>



Relevant Section in the Schedule 2 Requirements and Explanatory Memorandum		The Council's Comments
		<p>Limits. It also reconfirms that the compulsory purchase powers do not apply outside of the Order Limits. However please can Highways England confirm that any variation of the detailed design will be within the Order Limits. This is important as it helps stakeholders better understand the potential impact of the Project.</p> <p>b. In addition, please can Highways England explain why when considering departures from the detailed design the only consideration is new or materially different environmental effects. Amending the design has significant other effects (such as impacts on additional land interests) and is important that these are considered in full before any consent is granted. If the intention is that the Secretary of State will consider wider impacts, then this should be made clear.</p> <p>c. Please explain how 15% biodiversity net gain is going to be secured.</p> <p>d. Whilst it is clear that the Design Principles document and General Arrangement are part of the control documents, please confirm which plans are also intended to be control documents. It is important that the Council (and other stakeholders) are clear which plans are control documents and which ones are for information. Is the Environment Management Plan to be a control document? In our opinion it should be.</p>
4	Contamination	<p>The work done to date identifies 212 potentially contaminated sites, whilst the ground investigation undertaken is incomplete (and further GI, testing and assessment are identified to be undertaken in the reports) we are concerned that the necessary works may not be captured by Requirement 4. Please could an explanation of how an EMP prepared in accordance with ISO14001 will successfully capture the works to address historical contamination. For example, asbestos and ground gases are identified as hazards – please could details be provided on how the risks associated with off-site migration will be identified and mitigated.</p>
4(4)	Approved EMP (Second Iteration)	<p>a. The Council has previously highlighted that although 'the construction of the authorised development must be carried out in accordance with an approved EMP (Second Iteration)' there is not a requirement for it to be carried out in accordance with the EMP (Second Iteration) that is relevant to that phase of the works or for that EMP to be kept up to date. Highways England has previously confirmed that it considers the requirement to be</p>

Relevant Section in the Schedule 2 Requirements and Explanatory Memorandum		The Council's Comments
		<p>sufficiently widely worded that it would ensure that any EMP (Second Iteration) we need to be implemented in the relevant phase.</p> <p>b. In our opinion, whilst it appears to be the intention that the authorised development must be carried out in accordance with the relevant approved EMP (Second Iteration), this is not explicitly stated. We suggest that Requirement 4(4) is amended to refer to the authorised development being carried out in accordance with an approved EMP (Second Iteration) for the relevant part of the authorised development.</p> <p>c. There are no mechanisms to require Highways England (or its contractors) to provide updates to the EMP (Second Iteration) when significant changes in process or programme occur. This needs to be addressed in the drafting of the DCO.</p>
4(5)	EMP (Third Iteration)	The EMP (Third Iteration) should be developed in consultation with the affected Local Authority, with due response and reflection to the concerns and feedback raised by the Local Authority. Previously Highways England has referenced article 10 of the dDCO in response to this point. However, it is unclear why consultation can't occur in relation to the EMP (Third Iteration).
5	Landscaping and ecology	There are no timeframes for the submission, approval or implementation of the LEMP. We have previously suggested that this should be prior to the commencement of any part of the authorised development. Highways England considers that this would be inappropriate because landscaping includes operational elements. However, the landscaping works need to be approved at a formulative stage of the construction process, to ensure that they are provided. Please can Highways England explain the proposed timeframes for the submission, approval and implementation of the LEMP.
9	Archaeological interests	It would be more appropriate if the WSI is approved by the Secretary of State in respect of the Scheduled Monument and listed buildings impacted and the local authorities for the remainder of the work.
10	Traffic management	No part of the authorised development is to commence until a traffic management plan for the construction of that part which is substantially in accordance with the outline traffic management plan for construction has been

Relevant Section in the Schedule 2 Requirements and Explanatory Memorandum		The Council's Comments
		submitted to and approved in writing by the Secretary of State. Please could you confirm how traffic management in relation to the pre-commencement activities will be undertaken. On the current wording the traffic management plan for construction won't be in place for the pre-commencement activities.
10	Traffic management – permits	It is the Council's position that the TMP and any works must be dealt with via the permitting process. We have considered Highways England's previous response in relation to this suggestion. However, it remains the Council's position that the most appropriate way forward is for the permitting scheme not to be modified, and for designated resource to be provided by Highways England to allow the Council to process LTC permit applications quickly, whilst continuing to allow the efficient processing of permits from other applicants.
13	Travellers' site, deemed approval	<p>a. The insertion of deemed approval in Requirement 13(4) is unnecessary and likely to be counterproductive. The public interest would be better served by having deemed refusal provisions, as this incentivises local planning authorities to make decisions, but doesn't mean that decisions are made without appropriate scrutiny. In any event there should be the ability to agree extensions of time where both parties are happy to. Forcing the Council into position whereby it has no choice but to refuse the application, and then having to follow the appeal procedure, is an unnecessary use of public funds and will unnecessarily increase delay.</p> <p>b. Further, the ability of the Council to make a consenting decision is dependent on information provided to it. The time period for considering a consenting decision should only start when all relevant information has been submitted (see for example the provisions in the West Midlands Rail Freight Interchange Order 2020, which incidentally also allows for a consenting period of 42 days).</p> <p>c. It remains the Council's position that deemed consenting provisions do not increase the speed of the delivery of the Project. Instead, they encourage the Council to refuse consent, and significantly increase the likelihood of negative outcomes for the public as important decisions could be made without appropriate scrutiny.</p>
13	Travellers Site, indicative layout plan.	This requirement should cross refer to the indicative layout plan (referred to in the Design Principles (S11.12)) and for the development to be completed in accordance with it.

Relevant Section in the Schedule 2 Requirements and Explanatory Memorandum		The Council's Comments
14	Traffic Monitoring	<p>In requirement 14(2), which sets out what the traffic impact monitoring scheme must include, the following should be included:</p> <ul style="list-style-type: none"> <li>a. The traffic monitoring locations post completion. These must be agreed by the relevant highways authority.</li> <li>b. Confirmation of how long operational monitoring will last.</li> <li>c. Ongoing noise and air quality monitoring to ensure that it is within the limits assumed in the appropriate EMP.</li> <li>d. In the event that monitoring confirms that assumptions made in other documents are incorrect (for example in the EMP) there needs to be a mechanism for updating of adjustment of these documents. To assist with this, it is important that the target level of traffic, emissions, noise etc are clearly set out. The purpose of monitoring is to confirm that underlying assumptions are correct, and if they are not, then to take appropriate action.</li> </ul>
19	Appeals to the secretary of state	As discussed and agreed in previous correspondence, paragraph 19 of schedule 2 should also include appeals pursuant to articles 12, 17 and 21 of the dDCO.



## Lower Thames Crossing

Review of Draft Design Principles

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of Draft Design Principles

**Doc Ref:** Revision B

**Date:** October 2021

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<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
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B	05/10/2021	Issued to National Highways	-	CB	CB

This report has been prepared by Stantec UK Limited ('Stantec') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which Stantec was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). Stantec accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the Draft Design Principles.
- 1.1.2 This document sets out the Council's comments on the Draft Design Principles. This document follows a similar structure to the Design Principles spreadsheet provided by HE in July 2021. The document responds only to the sections relating to the north of the river.
- 1.1.3 The key themes of concern to the Council are:
- i. It is recognised that the matter of commonality of design of structures is set out in Design Principles STR.01 and STR.06. However, this largely deals only with 'Project Enhanced Structures' and should apply to all structures to reflect their landscape context and this should be amended accordingly within Section 3.5. This is considered important because the three main contracts to deliver the LTC scheme (Roads North, Roads South and Tunnels) may well take a differing approach to design and by providing these amended and additional Design Principles this should be avoided.
  - ii. Highways England are working with land promoters around East Tilbury (Iceni POT, the landowners) and whilst we have been involved in some of those conversations, we know we are not party to all. This could be undermining the Local Plan process and conflicts with wider borough objectives. This could also a conflict of interest if Thurrock are not party to conversations.
  - iii. There lacks any priority in the principles, what takes priority over what when it comes to making decisions besides cost?
  - iv. A disproportionate emphasis on the drivers 20 minutes of experience over that of residents who will live beside the project for decades and generations to come.
  - v. There is no mention of specialisms that are needed to achieve the principles, when team assembly is one of the most important aspects of achieving good design. Similarly, who leads the project is important, we can see that this has been overly led by engineering to problem solve a highways project and is missing a landscape or design led approach. We are concerned about how the project is taken forward with the future team.
  - vi. Tilbury is an area of deprivation and yet the Tilbury Fields project and the viaduct are woefully missed opportunities for a park and a well-designed structure. It should be an enhanced project.
  - vii. The enhanced projects are what should be the minimum for all structures.
  - viii. The ongoing issue of it not being a multi-modal route when public transport is more than just buses. It is so far from future-proof that it could never be good value for money.

## 2 Review of Draft Design Principles

### 2.1 Comments

Table 2.1: The Council's Comments on the Draft Design Principles

Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
<b>General Comments</b>					
n/a	General	The Council has repeatedly stated that it requires all infrastructure development to go beyond a basic utilitarian function and deliver 'net gain' and indeed a legacy for the local community and socio-economic, landscape, biodiversity and environmental (including air quality) outcomes. The role of good design to achieve these inter-related objectives has been the focus for the National Infrastructure Commission ( <a href="https://www.nic.org.uk/assessment/national-infrastructure-assessment/choosing-and-designing-infrastructure/">https://www.nic.org.uk/assessment/national-infrastructure-assessment/choosing-and-designing-infrastructure/</a> ). However, such an analysis is	This is a matter currently under discussion; please refer to the SoCG, #0138 and #0141.	Ongoing discussions.	No change since April.

Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
		missing entirely in the draft Design Principles. Given Section 2 of the NPS for National Networks (The need for development of national networks and Government's policy), the Council would expect an overview of how good design will be used to meet the Government's vision and objectives.			
n/a	General	The EMP is showing some provision of new wetland habitat; however, this has been sited close to the LTC route. This does not meet the aspirations of the Council and environmental organisations to recreate more extensive areas. It is important therefore that further flood storage provision should extend this area and provide additional landscape and ecological mitigation.	This is partially captured in the SoCG #0162; furthermore, specific entry to be added to SoCG, as this issue / comment is not specific to the Design Principles.	Agree it is a wider issue - not just DP.	No change to April's comments
n/a	General	The Council is yet to see any detail regarding likely design of the Tilbury Viaduct, which is	Please see response to THU DP 57 above.	Covered in main comments.	Still outstanding. The area of Tilbury is an area of multiple deprivation and the lack of design

Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
		stated within the draft Design Principles as being of high-quality design, however, it is not one of those listed in Section 3.5 as being a Project Enhanced Structure, despite its size, proximity to West Tilbury Conservation Area and likely impact on residents of East Tilbury.			quality measures for this area will only worsen the environment for this population.
n/a	General	The Council have a general concern that the LTC design does not allow for public transport use. There is no mention of bus routes or bus priority within the Design Principles and the design does not enable buses to serve growth locations (residential or employment). The Council have discussed the need for bus priority elements and adequate road width to be built into the Design Principles.	Public transport is not prohibited on the LTC. With LTC, journey times would be quicker from Kent to the port of Tilbury than using the Dartford Crossing.		Outstanding. Public transport is not limited to buses. Public transport is a wide range of vehicles and is now considered to be part of a multi-modal sustainable network. The LTC design excludes trains, trams, light rail, electric bikes, and scooters. Any future provision of these modes of transport would be impossible to include in the future as the design is not future-proof for modal changes.
n/a	General	There is little indication of how the Tilbury Link Road/Ockendon Link Road passive provision will	Please refer to SoCG #0191 and 0142.		N/A

Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
		be accommodated. It may not need to be covered in any detail here but should at least be referenced and perhaps cross referenced against the documents/letters that state passive provision is required.			
n/a	General	Whilst the draft Design Principles makes reference to sustainable local development and economic growth objectives, the Council made clear in its response to statutory consultation (December 2018) and subsequent consultation responses that not only does LTC, in its current form, not meet several of the national and Highways England strategic policy tests and project objectives, it also has a significant detrimental effect on the Council's ability to deliver sustainable growth and progress its emerging Local Plan. Whilst LTC's main objective of relieving congestion on the existing river crossings at Dartford may be temporarily met, based on	Please see response to THU DP 08 above.		Conflicts of interest: On-going from HE with the Local Plan team at Thurrock, however some conversations are being held between HE and Land promoters, without Thurrock involved, which are furthering undermining the Local Plan process, and attempts to bring benefit to residents living around the LTC project and impacted land in areas such as East Tilbury.

Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
		existing traffic projections, the project does not address the potential level of growth which will be triggered by the implementation of the Local Plan.			
n/a	Throughout document				Missing from the principles: There is no sense of the make-up of the design team and which specialisms are leading the project and elements of the project. The project so far appears to be overly Engineer-led without enough design coordination and oversight to design in the complex needs of the project. The hierarchy of expertise needs redressing to ensure that this is a design-led and more landscape-led scheme.
	Throughout document				Appointing the specialisms needed to ensure the principle can be achieved: for example, in this principle it is imperative that both a landscape architect and heritage specialist are leading on this and working in tandem.

Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
n/a	Across all principles				There is no sense of priority in the principles that would guide future design and construction decisions. What takes precedent is unclear for both the project-wide design principles and the area-specific design principles.
<b>Chapter 1: Introduction</b>					
1.1	Scope of this report				No comment.
1.2	Project Description	The project description does not include the legacy projects, nor does it include potential for junctions even as passive provision. Legacy projects need to be provided as a commitment within the DCO to ensure the delivery of the projects and provide greater control to the Council over local design elements.	The Legacy projects are not part of the DCO as they are still at early stages and not to a level of fixity that they can be included.	Noted; however, the Council will be seeking to secure as much detail of Legacy projects as early as possible and consider how they might complement proposed mitigation etc.	The Council's position remains the same. This is particularly important for areas around Coalhouse where mitigation and legacy should complement each other to deliver maximum benefits.
1.3	Scheme Objectives	Project objective a. is “to support sustainable local development and regional economic growth in the medium to long term.’ Yet	The passive provision is designed into the submission proposal, the design does not preclude a junction at a future date. The	While it is agreed that this is not a direct issue with regards the Design Principles it is a key	No change to April's comments

Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
		there is still no inclusion of passive provision commitments that would allow those living and working in the area to use the road. Nor is there mention of legacy projects within the area that benefit people and places that are the most impacted, for example the need for skills and development plans, or local apprenticeship schemes. These need to be included within the DCO.	Legacy and Benefits team are working alongside stakeholders, including Thurrock to investigate the benefits of a number of legacy projects, these are not sufficiently progressed to be part of the DCO.	ongoing discussion with the Council.	
1.3	Scheme Objectives	Also, public transport accessibility for LTC is poor, for example, if you are travelling from Kent how do you access Port of Tilbury (PoT) by bus using the existing LTC layout and without Tilbury Link Road junction? A bus would have to travel to the A13/A1014, make a U-turn and then return to PoT. This would increase travel time on the Thurrock network.	Public transport is not prohibited on the LTC. With LTC, journey times would be quicker from Kent to the port of Tilbury than using the Dartford Crossing.	This has not been addressed. The comment on public transport is about the lack of local services for local transport networks, as the LTC is a bypass for Thurrock it is unusable for public transport in the area as well as local residents in private vehicles. Journey times to the Port of Tilbury depend heavily on traffic on the A13.	No change to April's comments
1.3	Scheme Objectives	Project objectives c and f are 'to achieve value for money' and 'to	Public transport is not prohibited on the LTC. Furthermore, rail	This does not address the question of "is the design	No change to April's comments



Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
		improve resilience of the Thames crossings and the major road network.' The design is currently not future proof to allow for multi-modal transport and is limited to motor vehicles only. The crossing should be designed to be adapted to ensure it is usable for its built lifespan. Diversifying transport options would add to the resilience of the Thames crossings and the major road network. Investing only in the private vehicle network does not add resilience, it is reactive and not proactive.	connections have been considered in the past, but were not deemed to be technically viable.	futureproof to allow for adaptation of such a large piece of infrastructure for rail, tram, light rail in future?" For example: allowances for ducting, structural loads, and reserved areas for potential further infrastructure that would be needed for conversion or adaptation, to ensure conversion is feasible at a later date. This needs to be included in the design principles at this stage to avoid an obsolete pure-road design.	
1.3	Scheme Objectives	Project objective d. is "to minimise adverse impacts on health and the environment.". The difference between Mitigations and Legacy projects is unclear and there is a lack of measures to minimise the harm that the LTC will cause at a local level. The classification of some projects which are the direct effect of the LTC are relegated to the Legacy projects which have	Measures that form part of the required mitigation are within the proposal submitted for DCO approval. Any projects that are included as part of legacy works are over and above mitigation.	To clarify: what are considered as Legacy projects have been commented on as being essential mitigation projects that have been categorised incorrectly. The logic for categorisation is unclear and has yet to be explained to Thurrock officers. What are categorised as mitigation or legacy projects needs further discussion.	No change to April's comments.

Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
		no planning weight and thus no certainty. If these projects are necessary for this project to outweigh the harm caused, then they need to become part of the DCO submission. Much of what is being referred to as Legacy projects need to become Mitigation measures included in this package of works, as the whole principle of legacy is about securing a certain future.			
1.3	Scheme Objectives	Project objective e. is 'to relieve the congested Dartford Crossing and approach roads, and improve their performance by providing free-flowing, north-south capacity.' Consideration for future development on both sides of the Thames does not seem to have been taken into account for the likely future capacity of this new piece of infrastructure, Thurrock have shared emerging Local Plan growth options that give an indication of growth for housing and employment uses. This	Please refer to SoCG Item #0192: "Traffic modelling will comply with DfT's Web Tag guidance in terms of committed schemes and the ES cumulative assessment will also comply with appropriate regulations about committed schemes. LTC are helping Thurrock with additional traffic modelling focussing on a single scenario of growth. However, this additional modelling will take time and technical details are currently being discussed."	Discussions are ongoing around growth locations as there is a clash between National demands on housing numbers and the location of the LTC in some of these key growth areas that are the most sustainable for development, for example East Tilbury.	No change to April's comments.

Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
		again raises concerns that the design is not future proof, by not taking into account any growth or expansion in an area which is a growth corridor at national level.			
1.3	Scheme Objectives	<p>Project objective g. “to improve safety.” This objective needs to be considered against the current design which relies on smart motorway design that requires adequate technology and maintenance to work. Considering it is a relatively new road layout and has been called into review then LTC needs to be an exemplar of excellence to set the standard for safety. Steep gradients within the tunnel combined with large and heavy loads, and reduced emergency points within the tunnel need to be reviewed against this objective.</p>	<p>The project safety target is to achieve a 26% reduction in the Fatalities &amp; Weighted Injuries (FWI) rate per billion vehicle miles travelled with respect to the average FWI rate on the national motorway network.</p> <p>The tunnel design proposals have been determined by Operational Risk Assessment to comply with the project safety objective. The safety objective of a 26% reduction in FWI has been included as a contractor requirement within the contract documents.</p> <p>The LTC project is using the applicable design standards for safety. All highway gradients</p>	<p>This remains unclear, what is the fallback option if Smart Motorways are considered to be unsafe as there is no space for laybys, or has Smart motorway design evolved or improved since inception after feedback? The knock-on effect of the road gradient is significant in terms of the length of road, project area uptake etc and has not been resolved with this comment.</p>	No change to April's comments.

Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
			<p>comply with DMRB highway design requirements.</p> <p>Also please see SoCG issues #0253 and #0585."</p>		
<b>Chapter 2: Overarching design vision</b>					
2.1	Vision	2.1.3 This section considers how the overarching tenets of the Roads to Good Design have been engaged. In 'Connecting Places' the text has been edited and omits ""and be designed in a way that aligns with broader aspirations of local communities and stakeholders. Such an approach need not add cost to the Project; it is about doing things that need to be done anyway, such as the reinstatement of areas affected by construction, but doing so in a more thoughtful and imaginative way – smarter design. – considering solutions that represent the best value over the whole life of the Project.			Why has this text been edited?

Relevant Section in the Draft Design Principles and/or Specific Principle		Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
<b>Chapter 3: Project-wide design principles</b>					
3.1	Introduction				No comment.
3.2	Connecting people	Revision of text. PEO.02-13 - text revisions.			In general, the text amendments are considered appropriate and tighten up the language. PEO04 is omitted but no rationale given - it is assumed that it has already been applied as part of mitigation? PEO12 why is community engagement no longer proposed?
3.2	Connecting people PEO.01	The Council have raised issues in the past regarding unwanted use on the PRoW network and the need to design effectively to present unwanted and anti-social elements. It is important that dialogue continues with relevant Council officers and the Local Access Forum to work up appropriate specifications for surfacing etc. The wording of the principles is too vague in parts,	Access control and surface treatment will be considered carefully during the detail design process and be in line with guidance and standards. Convenient refers to directness and designed to provide routes that users want. Final DP PEO.01 text amended to: ""All Public Rights of Way (PRoWs) crossing the Project	Whilst the proposed wording in PEO.01 is okay as far as it goes it would be welcomed if there is reference to these designs being prepared in consultation with the relevant Highways Authorities.	The text has been amended to include reference to detailed design' but still does not reference 'in consultation with the relevant Highways Authorities.

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		for example PEO.01 “All Public Rights of Way (PRoWs) crossing the Project route shall be convenient, safe and provide a pleasant experience with changes in level minimised”. How do Highways England propose to provide convenient and safe PRoWs?	route shall have a detailed design that is safe and considers the convenience of the users and appropriateness to the context of the adjacent landscape character, with changes in level minimised. The Design Principles will be re-issued as part of the DCO 2.0 submission."		
3.2	Connecting people	The Council has a general concern that the LTC design does not allow for public transport use. There is no mention of bus routes or bus priority within the Design Principles and the design does not enable buses to serve growth locations (residential or employment). The Council has discussed the need for bus priority elements and adequate road width to be built into the Design Principles.	Public transport is not prohibited on the LTC. Please also see SoCG #0626."	Whilst public transport is not prohibited the current design does not promote public transport due to the lack of junctions serving local areas and thus preventing a comprehensive local network on this proposed major route. Junctions and passive provision are in discussion.	No change to April's comments.
3.2	Connecting people				The 'user' as defined in the Connecting People design principles is limited to road users, those travelling along the A122

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					road. The current order of principles suggests that the priority is for the experience of the road user who uses the road for a fleeting 20 minutes and gives less priority to those 'users' living with the impact for decades and generations to come. Understanding the priority of the principles in an order of priority is essential to guide the design process.
3.3	Connecting places PLA.05	The Council has yet to see the detail of what ecological mitigation is required and for there to be confirmation of the overall target of achieving at least 20% biodiversity net gain. While the Council support the principle of enhancing habitat connectivity we cannot assess at this stage if what is proposed is adequate.	<p>The details of the mitigation are defined within the DCO submission. However, the commitment to 20% biodiversity net gain has been removed in favour of '... landscape shall be developed with the goal of maximising biodiversity value where reasonably practicable.'</p> <p>The Project is in line with Highways England's organisational objective to deliver a net gain in biodiversity by 2040. Highways England has committed to achieving no net loss in</p>	Whilst we now have a lot more detail of the proposed landscape and ecology mitigation, it is important to note that we are still liaising with the ecology and design teams and Natural England to finalise the ecological mitigation that will go into DCO 2. Should this be Category 3?	Discussions are still ongoing, e.g. with relation to Tilbury Fields and connections to other important sites in the locality.

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			biodiversity by the end of RIS 2 and will work towards net biodiversity gain by 2040 across its estate. Although the construction of the Project would have significant adverse effects on statutory designated sites and irreplaceable habitats, such as veteran trees and some sections of ancient woodland, the design has sought to provide biodiversity gains, wherever possible, and this has resulted in a 15% increase in habitat value. An assessment of baseline biodiversity value and that achieved by the Project's design post development is presented within the Sustainability Statement (Application Document 7.12), Chapter 14.2."		
3.4	Connecting processes PRO.01	PRO.01 – The Council understand that there has been a subsequent meeting of the Design Panel in private and without informing stakeholders. The Council has formally requested (email to Highways	The HEDRP feedback letter and presentation has now been shared with the Council; a meeting was also held on 11/12/2020 to discuss the HEDRP presentation and the current Preliminary Design	Agreed that we have received the further information now and the rationale for changes to design have been presented to officers and the Task Force. Design work is still ongoing. How the Design Council's comments from	No change to April's comments.



Relevant Section in the Draft Design Principles and/or Specific Principle	Issue(s)/Comments Raised October 2020	Highways England Notes/ Response	Thurrock Comments/ RAG April 2021	Thurrock Comments/ RAG – Non Statutory Consultation August 2021
	<p>England, 22 September 2020) a copy of any presentation that was given during the meeting and also to receive a copy of the minutes that were taken of the discussion and issued by the Design Council subsequently. Highways England's response to this request for this latest Design Council meeting notes and any formal correspondence has been to refuse to send this information. The explanation is that the Design Council meeting was informal and internal only and that the Panel were supportive of the current design, plus Highways England have determined that the structure is a 'Project Enhanced Structure' with additional design commitments within the amended Design Principles, such as using a complementary and consistent material palette, being well detailed and coordinated and are integrated sensitively and seamlessly into the landscape. This is a new proposal and has</p>	<p>proposals. A further meeting / presentation was held on 18/01/2021 to present the design evolution of the Mardyke and Orsett Fen Viaducts to the Council Task Force and members.</p> <p>A consistent material palette is now a requirement across all bridge structures (Design Principle STR.07).</p>	<p>earlier design reviews have been addressed is still unclear and understanding how HE are responding to Design Council's comments as a timeline would clarify matters.</p>	

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		not been seen or discussed with the Council and consequently our position is still in opposition to the current design. Understanding future design review processes would also be useful.			
3.4	Connecting processes PRO.02	Will the 'multi-disciplinary collaborative design process' include appropriate local authority input?	Discussions regarding LA input to the future design process are currently ongoing.	Agreed - this is ongoing.	No change to April's comments.
3.4	Connecting processes PRO.02	Also states that access tracks will be multi use – the Council need to be careful because that suggests opening these PROW routes for abuse by anti-social behaviour such as motorbikes etc. It also suggests a surface which is more problematic to maintain.	Noted; however, this is referring specifically as an example of 'integrated design' (i.e. Rather than have a parallel utilities access adjacent to a PROW, they can be combined to form an integrated cohesive design. Appropriate measures will be required to prevent unauthorised vehicular access).		Noted – this is an example of how elements could be integrated rather than recommendation that all routes should have multiple uses.
3.5	Structures	The Tilbury Viaduct is not included in the list of Project Enhanced Structures despite its size and proximity to residents in East and West Tilbury. The West	All bridge structures will be designed to a good standard (Design Principle STR.07); However, it was felt the Mardyke had more prominence in a	Noted, although the Council will be seeking to continue to work with LTC to ensure that the design is appropriate for the location. The priority and logic for	No change to April's comments.

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		Tilbury Conservation Area is a short distance from the structure from where there are direct views from residential properties. The Council wishes to see this major structure included in the Project Enhanced Structures list.	naturalistic landscape. We have allowed for the sensitive inclusion and integration of acoustic barriers (where required). This was also explained in an email response to the Council on 19/12/2020 at 15:44 and presented to the Council and Task Force on Monday 18/01/2021.	which structures are enhanced, and which are not enhanced remains unclear. The specification and detail for the structures that are not enhanced is not clear.	
3.5	Structures STR.01 and STR.06	Commonality of design			It is recognised that the matter of commonality of design of structures is set out in Design Principles STR.01 and STR.06. However, this largely deals only with 'Project Enhanced Structures' and should apply to all structures to reflect their landscape context and this should be amended accordingly within Section 3.5. This is considered important because the three main contracts to deliver the LTC scheme (Roads North, Roads South and Tunnels) may well take a differing approach to design and by providing these amended and additional Design Principles this should be avoided.

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3.5 Structures STR.02	<p>'It shall be developed to reflect the nature of their context and integrated positively with the landscape works.' The landscape proposal at the portal contradict the design principle STR.01 where the earthworks from the spoil are currently designed as poorly integrated substantial mounds around the portal area that are not integrated within the landscape. The Council has previously raised concerns regarding this point within the Councils Review of North Portal Landscape Restoration Proposals (May 2020). There is a conflict between the existing landscape and the proposed landscape works.</p>	<p>We believe the north portal has in fact been integrated within the surrounding (and proposed 'Tilbury Fields' landform) as far as technically practicable. The current Preliminary Design was praised by HEDRP. Goshems Farm and the surround area adjacent to the north portal has had a history of industrial human intervention. The presentation of Tilbury Fields landform was positively received by the Council; although the scale of the north portal were queried, the technical requirements for the safe operation of the tunnel dictated the size and positioning of the tunnel service building. Also please see Chapter 8.2.22 of the Project Design Report (Application Document 7.4).</p>	<p>The design of the Tilbury Fields surrounding the portal is still being actively revised. At a meeting on 23/02/21 it was agreed that the building was a 'worst-case' and the design would be worked up post-DCO however the form of the surrounding earthworks have not been finalised. This potential park area needs to be secured through the DCO process.</p>	<p>Further design work is moving in the right direction but still has not been finalised.</p>
3.5 Structures STR.06				<p>The qualities outlined in the Project Enhanced Structures should apply to all structures as these more closely meet the principles set out by the project, and anything less than this</p>

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					specification implies a contradiction in quality terms. The difference between STR.06 and STR.07 is marginal enough to warrant all bridge structures following the principles under STR.06.
3.6	Lighting, signage & technology				No comment
3.7	Landscape LSP.03	The principle is considered appropriate, however at this stage the Council has not been provided with plans of sufficient detail to see what this will mean in reality. 'Where the above is not possible, high-quality design and/or additional landscaping adjacent to the receptor to mitigate the loss of visual screening within the Order limit Boundary.' It is the Council's opinion that there is insufficient space to mitigate within the Order Limits.	<p>This is defined in more detail in the Environmental Masterplan (Application Document 6.2, Figure 2.4). Wording also amended to ""Where this is not reasonably practicable, the design shall provide additional landscaping adjacent to the receptor to mitigate the loss of visual screening within the Order Limits.</p> <p>Visual screening (acoustic and ecological barriers) has not been designed in detail and will be developed in the detailed design stage.</p>	<p>More detail has been provided now; however, the Council considers further mitigation is required in key locations.</p> <p>This is still unclear. As works progress the suggested locations for current mitigations may be constrained or not possible, and there is little room in the current Order Limits. Consider mitigations outside of the Order Limits as the boundary line is extremely tight and this may result in inappropriately located, piecemeal, or poorly integrated landscape mitigations. Areas</p>	More information is now available. Text now refers to EMP.

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				where the Order Limits overlap with publicly owned land could be an option to consider for mitigations.	
3.7	Landscape LSP.06	'Where compatible with mitigation proposals the Project shall provide, within the Order Limits, enhanced access, amenities and green infrastructure.' The boundary of the project is restricted and has been more recently reduced, which limits the ability to accommodate infrastructure within boundary limits and make meaningful.	Noted; however, the Design Principles can only include areas within the Order Limits. The intention of this principle is to integrate and develop the Project's detailed design with the delivery of green infrastructure (by others). The current Order Limits are being reviewed and amended to further increase the connectivity and provision of lasting legacy.	Review of Order Limits ongoing as per comment. If the principle cannot be realised due to a restricted Order Limit then it is imperative that the Order Limit boundary extent is addressed to accommodate such a key principal.	Text is considered generally appropriate - use of legacy in this context is confusing.
3.7	Landscape LSP.07				Appointing the specialism needed to ensure the principle can be achieved: for example, in this principle it is imperative that both a landscape architect and heritage specialist are leading on this and working in tandem.
3.7	Landscape LSP.08	This is particularly relevant for the Mardyke Valley, especially now that the higher quality	The design evolution of the Mardyke and Orsett Fen viaducts were presented on 18/01/2021 to	Agreed mainly covered above; however, in light of changes to water vole mitigation the areas of	No change to April comments.

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		viaduct design proposed by LTC is not being adopted. The Council will need to see more detailed plans showing what this will entail.	the Council Task Force and members.	wetland might need to be reviewed.	
3.7	Landscape LSP.09				Acoustic barriers: There is mention of acoustic barriers throughout the principles but there are no guiding principles as to how these will be handled. These need to be as naturalistic as possible and blended in with the landscape, as opposed to cost-effective large opaque fencing panels which further segregate of the landscape. What acoustic barrier typologies or qualities are to be prioritised? Typical sections or precedent images are needed.
3.7	Landscape LSP.17	The Council welcome the acknowledgement of the need for balancing ponds to appear as naturalistic elements. The Council has raised the issue previously that the plans that have been presented to date	Noted. The final design will be developed by the MWC who will be legally obliged to comply with this principle. Discussions regarding LA input to the future design process are currently ongoing.	Noted - level of LA input still to be finalised.  The principle wording is vague and does not include the multi-use nature of a balancing pond with other uses as previously	The LPA should still be consulted on final designs.

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		show standard engineered designs. The final design of all the ponds should be undertaken in consultation with local authorities.		commented, as integrated elements that serve ecology, recreation, play, and so forth. This needs to be set out by a designer at this stage as a principle as it is unlikely to be costed and designed accordingly by the future MWC.	
<b>Chapter 4: Area-specific design principles</b>					
4.1	S1 – A2/M2 Corridor				No comment.
4.2	S2 – M"/A2/Lower Thames Crossing Junction				No comment.
4.3	S3, S4 & S5 – Gravesend link & South Portal				No comment.
4.4	S6 – Tunnel				No comment.



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4.5 S7, S8 & S9 – Tilbury Marshes and North Portal	There is agreement in principle that the new landscape cannot be blended into the surrounding remnant marshland landscape and this offers opportunities for a distinctive design solution. It is essential however that there is sensitivity to the surrounding scheduled monuments and remnant marshland.	Noted; (previously discussed in THU DP 20 above).	Ongoing discussion. See comment for THU DP 20 on portal area. The current portal area does not respond sensitively to the surrounding marshland and proposals have been put forward by Thurrock that relate to an existing masterplan for the waste site at the north portal to create an integrated ecology area.	Further design work has been presented to the council and other stakeholders and this shows greater integration with the surrounding ecological and heritage sites. Development work is ongoing.
4.5 S7, S8 & S9 – Tilbury Marshes and North Portal S9.02	The idea of sculptural earthworks in this location have been considered already. Whilst in principle this approach could be acceptable, the Council has yet to receive any details as to proposed heights of the final earthworks and visuals showing how such a feature would relate to the surrounding landscape, particularly Coalhouse Fort and the adjacent unmanaged East Tilbury Landfill. Reference is made to returning this area to pastoral agriculture – there is no grazing at present so who is it envisaged would have stock on	Additional information is available and contained within the Project Design Report (Application Document 7.4) Part D (Tilbury to the A13 Junction), Chapter 8.2. The Project presented the current Preliminary Design to the Council Task Force and Council members on 18/01/2021. Further workshops will be held with Thurrock to discuss the development of 'Tilbury Fields' proposal.	Proposals for this area are currently being revised in liaison with the Council.	As above. Discussions are ongoing however the current design and brief for Tilbury fields has limited potential in Tilbury, an area of multiple deprivation. The current description of Tilbury Fields lacks the indication of funding that would be necessary to create a park out of a spoil heap. The brief for this area needs to be considered as a park and equipped adequately. This must be a commissioned public realm and public art project with Thurrock's governance.

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		a publicly accessible site? This important site should not be developed by LTC in isolation, it is vital that the Council is involved with the design of the whole area associated with Two Forts Way to ensure a suitable final legacy that is of benefit to local people.			
4.5	S7, S8 & S9 – Tilbury Marshes and North Portal S9.05	This makes it clear that LTC does not intend to help address issues relating to the current closure of Two Forts Way but will provide a couple of interpretation boards. This is unacceptable and does not accord with current technical discussions. The Council seek for S9.05 to be amended and allow for enhancement.	The Two Forts Way will be largely retained in its existing condition within the Project Order Limits. See Environmental Masterplan (Application Document 6.2 ES Figure 2.4) (Section 9) Thames Estuary Path (including the Two Forts Way) and Grangewaters are considered within ES Chapter 7: Landscape and Visual (Application Document 6.1) section 6. Additional information is available and contained within the Project Design Report (Application Document 7.4) Part D (Tilbury to the A13 Junction), Chapter 8.2. Please also see response to TU DP 35 above, and see SoCG	The field west of Coalhouse Fort and to the rear of the existing footpath is no longer to be used for water vole mitigation; instead it will be a high-water roost. This accepts that the flood defence is no longer viable. The England Coast Path is now routed around the north of this field. The emerging proposals for Tilbury Fields show this route. Discussions are ongoing regarding help with rerouting this path.	Discussion re mitigation and legacy are ongoing.

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			Issues #0063, 0074, 0168 and 0282.		
4.5	S7, S8 & S9 – Tilbury Marshes and North Portal S9.13	Is this not an EMP item as well? it is important that the Council has the opportunity to see the design of this area and how it relates to Coalhouse Fort given its proximity.	Yes, this is also contained within the Environmental Masterplan (Application Document 6.2, Figure 2.4) and will also be contained within the OLEMP.	This area is no longer to be used for water vole mitigation. We will need to receive details of the design of the new mitigation features.	This is out of date and should be removed.
4.5	S7, S8 & S9 – Tilbury Marshes and North Portal S9.17	Surfacing materials should be agreed with the Council as Highways Authority responsible for their future upkeep.	Noted; the exact specification of surfacing materials will be specified at detailed design. We would welcome any specific material preferences.		Noted – this is a detailed design point. It is vital that while materials should be hard wearing their environmental impacts should also be considered.
4.5	S7, S8 & S9 – Tilbury Marshes and North Portal S9.17	No mention to reinstating the seawall and coastal path/Two Forts Way by reinforcing the sea wall, as has been discussed in recent technical meetings.	This Design Principle was amended to: "The existing alignment of FP200 is through common land and the re-aligned route shall be through replacement common land. The quality of the route shall not be inferior to the existing route, and areas of tree planting will screen this route from the road. The area	The future alignment of Two Forts Way is being reviewed as part of mitigation requirements.	No change to April's comments.

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			of common land will not be diminished."  Please also see our response to THU DP 36.		
4.6	S10 – Chadwell Link S10.01	This refers to a shared track parallel to Muckingford Road. Is this a shared use track suitable for walkers, cyclists, and horse-riders? What surfacing is proposed?	The proposed new shared track will be suitable for WCHs. The specification of surface shall be determined at detailed design. We would welcome any specific material preferences.		Noted – these points are too detailed and not principles
4.6	S10 – Chadwell Link S10.09	Surfacing materials should be agreed with the Council as Highways Authority responsible for their future upkeep.	Please also see response to THU DP 44 above.		Noted – these points are too detailed and not principles
4.7	S11 – A13 Junction S11.06	The overall approach is considered appropriate. However, the Council as landowner and manager would need to be involved in the detailed design works.	Noted; it is anticipated the exact details of planting will be specified at detailed design. The approach to access and management and maintenance will be addressed in the OLEMP.	The details are still to be finalised although the principles have been agreed.	The revised area and restoration has been agreed in principle. Details to be finalised.
4.7	S11 – A13 Junction S11.06	In principle this will be an enhancement. However, it is unclear how far along Baker Street this route will go. The	Noted; The text in the clause refers to between the A1013 and the A13 underpass being the extent of this shared route.		Noted – this point is too detailed and not principles

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		detailed design of S11.13-15 should be undertaken in liaison with the Council.			
4.8	S12 – Ockendon link S12.01	The approach to minimise earthworks is supported. However, the Council is yet to receive detailed designs for the viaduct in order to be able to assess the landscape and visual impacts of the scheme. The previously revised design, which sought to mitigate the significant visual effects of the scheme, was abandoned by LTC without any subsequent justification. It is therefore unclear what measures are available to minimise these significant effects now.	The Mardyke viaduct was discussed with the Council at a meeting on Friday 11/12/2020 December 2020. A further meeting to present the design evolution of the Mardyke viaduct to the Council was held on Monday 18/01/2021.	More detail has been provided now; however, there are still changes being made e.g. to water vole mitigation.	Some information has been provided on water vole mitigation now. Still not formally presented though.
4.8	S12 – Ockendon link S12.02	The design of the viaduct that has been selected will curtail many long views through the valley. It is vital that new tree and woodland planting do not reduce the open expansive character still further. The final landscape mitigation scheme should be	The proposed woodland planting has been designed to naturalistically integrate the embankment into the wider landscape. Woodland planting is not proposed adjacent to, or in front of the viaduct so that views through the structure remain	More details have now been presented regarding the design of the structures and their setting.	No change to April comments.

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		prepared in consultation with the local authorities.	uninterrupted, as shown in the EMP (Section 12, Sheet 2 & 3).		
4.8	S12 – Ockendon link S12.03	To enable the Council to determine if the current proposed design of the viaducts do maximise environmental permeability it will be necessary to provide a design analysis, including previous iterations, to show how the design has evolved to achieve the best possible design. The Council would expect to see this analysis in the Project Design Report.	Please see response to THU DP 57. The design evolution is also detailed within the Project Design Report (Application Document 7.4), Part D, (Tilbury to the A13 Junction), Design Evolution (3. Tilbury Viaduct, Page 36), and Part D (North of the A13 Junction to the M25), Design Evolution (2. Mardyke Viaduct and Crossing, Page 30)."	More details have now been presented regarding the design of the structures and their setting.	Wording has been amended and refers to DCO powers. Text is considered to be clearer.
4.8	S12 – Ockendon link S12.04 & S12.06	The design proposed by LTC last year provided ample clearance as it had argued that a higher structure would have allowed better views through and lessened its visual effects. It is clear that the current scheme is a lot lower if it is only allowing room for horse-riders and high-water levels.	A 4m clear headroom under the Mardyke viaduct Trail will be maintained by the current Preliminary Design. This was presented in more detail to the Council on Friday 11/12/2020 and Monday 18/01/2020.	More details have now been presented regarding the design of the structures and their setting.	Wording has been amended and refers to DCO powers. Text is considered to be clearer.

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4.8	S12 – Ockendon link S12.09	Surfacing materials should be agreed with the Council as Highways Authority responsible for their future upkeep.	Noted; Please see response to THU DP 44.		Noted – this point is too detailed and not principles
4.9	S13 & S14 – M25 junctions				No comment.
<b>Appendix A: Planting Palettes</b>					
					No comment.
<b>Appendix B: Project Enhanced structures, Bridge Diagram</b>					
					No comment.

## 2.2 Summary and Recommendations

### Summary

2.2.1 This document sets out the Council's comments on the Draft Design Principles and responds only to the sections relating to the north of the river.

- i. The key themes of concern to the Council are:
- ii. Highways England are working with land promoters around East Tilbury (Iceni POT, the landowners) and whilst we have been involved in some of those conversations, we know we are not party to all. This could be undermining the Local Plan process and conflicts with wider borough objectives. This could also be a conflict of interest if Thurrock are not party to conversations.
- iii. There lacks any priority in the principles, what takes priority over what when it comes to making decisions besides cost?
- iv. A disproportionate emphasis on the drivers 20 minutes of experience over that of residents who will live beside the project for decades and generations to come.
- v. There is no mention of specialisms that are needed to achieve the principles; however team assembly is one of the most important aspects of achieving good design. Similarly, who leads the project is important. We can see that this has been overly led by engineers to problem solve a highways project and is missing a landscape or design led approach. We are concerned about how the project is taken forward with the future team.
- vi. Tilbury is an area of deprivation and yet the Tilbury Fields project and the viaduct are missed opportunities for a park and a well-designed structure. It should be an enhanced project. Design discussions are ongoing regarding Tilbury Fields and may result in an additional Design Principle.
- vii. The enhanced projects are what should be the minimum for all structures, particularly Tilbury Viaduct as the area of Tilbury is an area of multiple deprivation and the lack of design quality measures for this area will only worsen the environment for this population. The priority and logic for which structures are enhanced, and which are not enhanced remains unclear. The specification and detail for the structures that are not enhanced is not clear.
- viii. The ongoing issue of it not being a multi-modal route when public transport is more than just buses. It is so far from future-proof that it could never be good value for money. There is no mention of bus routes or bus priority within the Design Principles and the design does not enable buses to serve growth locations (residential or employment). Whilst HE state that public transport is not prohibited, the current design does not promote public transport due to the lack of junctions serving local areas and thus preventing a comprehensive local network on this proposed major route. Junctions and passive provision are in discussion.
- ix. The Council's issues raised in October 2020 regarding the seven Scheme Objectives remain and need to be addressed by HE.
- x. It is vital that the emerging provision for walking, cycling and horse riding (WCH) is designed to a high specification to ensure that it is capable of meeting increasing levels of use from non-drivers. The final Design Principles should reflect the best practice set out in LTN 1/20.



- xi. There is mention of acoustic barriers throughout the principles but there are no guiding principles as to how these will be handled.
- xii. The Two Forts Way is an important link through the south of the borough and its essential that LTC helps ensure that it is fully accessible for walkers and cyclists.

## Recommendations

2.2.2 Highways England should address the Council's comments set out in Table 2.1 above. Key recommendations are set out below:

- i. Thurrock Council should be involved in all discussions Highways England and land promoters around East Tilbury (Iceni POT, the landowners), to feed into the Local Plan process and meet wider borough objectives.
- ii. Highways England should prioritise principles, to provide evidence to stakeholders on what takes priority over what when it comes to making decisions besides cost.
- iii. Reduce the emphasis on the drivers 20 minutes of experience over that of residents who will live beside the project for decades and generations to come.
- iv. Reference specialisms that are needed to achieve the principles. Ensure a landscape / design led approach by including a landscape/design expert in the lead team.
- v. Tilbury Fields project and the viaduct should include opportunities for a park and a well-designed structure. It should be an enhanced project.
- vi. Ensure the enhanced projects are the minimum for all structures. The priority and logic for which structures are enhanced, and which are not enhanced should be made clear and the specification and detail for the structures that are not enhanced should also be made clear.
- vii. Provide a multi-modal route which is future-proof.
- viii. The Council's issues regarding the Scheme Objectives in October 2020 remain and need to be addressed by HE.
- ix. Ensure that all WCH works are designed in accordance with LTN 1/20.
- x. Guiding principles for the acoustic barriers should be provided. These need to be as naturalistic as possible and blended in with the landscape, as opposed to cost-effective large opaque fencing panels which further segregation of the landscape. HE need to set out what acoustic barrier typologies or qualities are to be prioritised and typical sections or precedent images are needed.
- xi. Ensure that Two Forts Way is designed to be fully accessible for walkers and cyclists.



## **Lower Thames Crossing**

### **Review of Outline Landscape Ecology and Management Plan**

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of Outline Landscape and Ecology Management Plan

**Doc Ref:** Revision C

**Date:** 05/10/2021

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<b>Reviewed and Approved by:</b>	Chris Stratford	Consents and DCO Senior Consultant	CS	September 2021
<b>For and on behalf of Thurrock Council</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	SP	CB	CB
B	05/10/2021	Issued to National Highways	-	CB	CB

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) issued Thurrock Council (the Council) with the draft Outline Landscape and Ecology Management Plan (OLEMP) in July 2021, as part of the Community Impacts Consultation process. HE originally provided the Draft OLEMP to the Council in February 2021 and the Council provided comments back to HE in May 2021. The Draft OLEMP provided in July is unchanged since the version provided in February, as such the Council's comments provided in May remain unchanged and are copied below.
- 1.1.2 This document sets out the Council's comments on the proposed OLEMP and if there are any suitable opportunities to improve this infrastructure.
- 1.1.3 The document follows the same structure as OLEMP and responds only to the sections relating to the north of the river.
- 1.1.4 The OLEMP is based on the preliminary design to date. It is to be further developed following approval of the DCO in consultation with local planning authorities, Natural England and other relevant stakeholders (it is assumed that this will include possible 3<sup>rd</sup> parties that will take on management of mitigation areas etc).
- 1.1.5 The final version will be created by the Principal Contractor for implementation during the during and after the establishment period. It is expected (1.1.4) that the final version will be substantially in accordance with this OLEMP.

## 2 Review of draft OLEMP

### 2.1 General Comments

- 2.1.1 The emerging format of the draft OLEMP is considered generally appropriate; however at this stage there are no maps, either within this document or the EMP which show the suggested detailed layout of mosaics of habitat on site. As a result, the Council is only able to provide high level comments on what is proposed at this time.
- 2.1.2 In section 1.2 reference is made to the OLEMP being part of a suite of documents including the EMP, REAC and Design Principles that capture the landscape and ecology design and environmental commitments. As these documents are all at relatively early stages of development and contain little specific detail it is unclear which document has primacy.
- 2.1.3 The draft OLEMP at the stage relies on general typologies and broad planting palettes; it does not explicitly set out how the final detailed specifications will be prepared to ensure that they account for local conditions etc. The Design Principles also contains broad planting palettes currently. How will these be developed?
- 2.1.4 The most significant issue at this point is that proposals for several the key areas within the borough only have placeholder text due to changes in design and/or mitigation requirements. The Council is in discussion with the LTC team regarding these and is aware of the suggested changes. It is not clear if a revised OLEMP will be provided for comment prior to DCO submission.
- 2.1.5 No detailed comments have been provided for 7.0 Habitat Typographies. These have been reviewed and are considered appropriate in that they draw on established good practice; however, they are generic and lack site specific detail at this stage. It will be necessary as the document develops for there to be more detailed specifications provided that relate to specific site requirements. It is important therefore that the Council is part of the proposed Advisory Board inputting into the design development and proposed future management.
- 2.1.6 The EMP is currently the main document containing plans for the proposed areas for landscape and ecological mitigation. The document is very large and unwieldy, and the plans do not relate to specific sites. In most cases the plans only provide a single indicative management regime. It is not possible therefore to see how it is proposed to layout different habitat typographies within one site. This again limits the level of detail the Council is able to provide in its comments.
- 2.1.7 In accepting the principles of the management principles and habitat typographies within the OLEMP the Council is not accepting the adequacy of the current proposed landscape and ecological mitigation.

## 2.2 Detailed Comments

Table 2.1: The Council's Comments on the draft OLEMP

Relevant Section in the OLEMP		The Council's Comments
<b>Chapter 1: Introduction</b>		
1.1	Scope of this document	It is agreed that the OLEMP should focus on the management requirements for the land parcels that perform specific landscape and ecological mitigation functions for LTC. This will help ensure that it is not unwieldy.  1.1.6 Where will routine vegetation maintenance activities be covered? Will this be dealt with solely as part of a maintenance contract?
1.2	Context of this document	No comments
1.3	Structure of this document	No comments
1.4	How to read this document	It is agreed that the document should be broken down by area and planting/habitat typographies are kept separate to ensure that it is manageable. It is important that the areas clearly relate to other documents, particularly the EMP. At present the plans within the OLEMP are not of sufficient detail to allow this to be assessed.
<b>Chapter 2: Project aims and objectives</b>		
2.1	Project description	No comments
2.2	Scheme objectives	No comments
2.3	Design Principles	While the 3 objectives listed are seen as acceptable in principle it is not clear how they relate to the Design Principles and other documents.



Relevant Section in the OLEMP		The Council's Comments
<b>Chapter 3: Implementation of the LEMP</b>		
3.1	Roles and responsibilities	This section is still being developed. It is accepted that until there is more clarity about the scheme and the mitigation requirements this cannot be worked up further. The Council supports the intention of setting up an advisory group to help inform decision making throughout the duration of the LEMP. It would wish to ensure that the Council is represented on this board.
3.2	Habitat management duration	The title of this section should be changed. It implies that management is to be time limited whereas it refers to establishment periods. In 3.1 it states establishment will be a contractual requirement separate to ongoing long-term management. It is assumed that the establishment contract will not run for up to 25 years. This needs clarification.
3.3	Securing mechanism	The Council notes the LEMP will be secured through the DCO and will be prepared substantially in accordance with this OLEMP. It will be prepared in consultation with the relevant LPAs and Natural England. Is it envisaged that the Advisory Board will be established in advance of the LEMP to help inform its content?
<b>Chapter 4: Management areas south of the Thames</b>		
No comments on this section		
<b>Chapter 5: Management Areas – North of the river to A13 junction</b>		
5.1.2	Introduction	It is not clear what this paragraph means. Why are only 3 sections listed not all 12?
5.2	Tilbury Fields	Only placeholder text has been provided as the design proposals for this area are currently being revised.
5.3	Coalhouse Fort Water Vole habitat	Only placeholder text has been provided as the mitigation proposals for this area are changing.

Relevant Section in the OLEMP		The Council's Comments
5.4	Coalhouse Fort Open Mosaic Habitat area	The principles accord to discussions that have taken place regarding ecological mitigation requirements. In addition the requirement to include additional GCN habitat has included. At present there are no plans showing how the different habitat types will be configured across the site.
5.5	Tilbury Link	C Low Street Pit – is this proposal relating to landscape reinstatement rather than measures over and above ecological mitigation to be provided in Coalhouse Fort OMH? F - which road verge does this refer to? It is assumed is it just LTC.
5.6	Chadwell link	No comments
5.7	Green Bridges (Muckingford Road, Hoford Road and Green Lane	Muckingford Road – It is stated that there is to be open grassland areas 7m wide - this is the first indication of the possible scale of the green elements. The council would like confirmation that this relates to the grassland within the parapets. Is this on one side or both sides? Hoford Road – will this comprise only hedgerow with trees or will it include areas of grassland? Green Lane – is there a figure for the open grassland on this bridge? The Council wishes to see cross-references to Plans for Approval and Design Principles added.
5.8	Linford Open Mosaic Habitat	No comments.
5.9	Rainbow Shaw Ancient Woodland Compensation	This accords with discussions the council has had on this site.
5.10	Baker Street Woodland	Only placeholder text provided as area is subject to change.
5.11	Ron Evans replacement land	The principle of what is proposed for the replacement land is considered acceptable. The Council is still in discussions to confirm what the extent of the areas will be. The current plan does not accord with the EMP. This section will need to be updated following the conclusion of discussions on replacement open space.
5.12	A13 junction	The proposed management is considered appropriate and takes into account the difficulty of accessing various parcels.

Relevant Section in the OLEMP		The Council's Comments
<b>Chapter 6: Management Areas – North of A13 junction to M25</b>		
6.1.2	Introduction	It is not clear what this paragraph means. Why are only 2 sections listed here, not all 8?
6.2	Ockendon link	The approach reflects the current proposals for landscaping within this section of the route. It will be important to ensure the sections adjacent to Orsett Fen complement the character of its habitat through appropriate design and species choice. It will be necessary to ensure it complements the proposed Orsett Fen open space compensation land.
6.3	Orsett Fen – Wetland Creation	Only placeholder text has been provided as the proposed mitigation uses for this area are being reviewed. As the design is progress it should consider how it relates to the proposed Orsett Fen open space compensation land.
6.4	Reservoir – Open Mosaic Habitat	The proposals are considered appropriate for enhancing the ecological value of the reservoir.
6.5	Green Bridges (North Road)	The proposals accord with discussions that the Council has had with the LTC team.
6.6	M25 junction	The focus on providing additional woodland within the area is considered appropriate for helping to screen the proposed LTC and existing LTC for residents within the north of the borough.
6.7	Thames Chase compensation	This area is outside the borough; however the council, as a partner to Thames Chase, supports the proposed mitigation measures.
6.8	Folkes Lane woodland compensation	Outside the borough and only placeholder text.
<b>Chapter 7: Habitat Typologies</b>		

Relevant Section in the OLEMP	The Council's Comments
	<p>At this stage only the broad principles have been provided for each habitat type. These draw from standard specifications for good design, establishment and management and therefore are all considered appropriate. It is not clear if these all relate to the planting palettes set out in the Design Principles. Can this be clarified?</p> <p>The Council would want to have more detailed input as the designs and specifications are developed for the full LEMP.</p>

## **2.3 Summary and Recommendations**

### **Summary**

- 2.3.1 The draft OLEMP is yet to consider several of the areas most adversely impacted by the scheme within the Borough, for example, areas around the north portal, Coalhouse Fort and Orsett Fen. Similarly there are still discussions being held with the LTC team regarding the Ron Evans compensation land. The Council wishes to see an updated document covering these areas prior to DCO submission.
- 2.3.2 The emerging structure for the OLEMP is considered to offer a way to present the developing landscape and ecology mitigation requirements in a useable format; however it is important that the EMP in particular is restructured to ensure consistency.
- 2.3.3 The Council recognises that the development of the OLEMP and subsequent LEMP will be iterative as designs progress. It is therefore keen to be actively involved with the ongoing development of these documents.
- 2.3.4 As the landscape and mitigation measures develop it will be necessary to consider how to better present the information between the LEMP and EMP as the existing plans within the EMP are not fit for purpose.

### **Recommendations**

- 2.3.5 To continue to engage with the Council regarding the emerging landscape and ecological mitigation requirements and how these will be delivered.



## Lower Thames Crossing

Review of Ward Impact Summaries - North of the River - Part 1 and 2

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of Ward Impact Summaries - North of the River - Part 1 and 2

**Doc Ref:** Revision B

**Date:** October 2021

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<b>Approved by:</b>	Chris Stratford	Consents and DCO Senior Consultant	CS	September 2021
<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	-	CS	CS
B	05/10/2021	Issued to National Highways	-	CB	CB

This report has been prepared by Stantec UK Limited ('Stantec') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which Stantec was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). Stantec accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the assessment details for the Ward Impact Summaries - North of the River - Parts 1 and 2.
- 1.1.2 This document sets out the Council's comments on the proposed Ward Impact Summaries - North of the River - Parts 1 and 2 and if there are any suitable opportunities to improve this infrastructure.
- 1.1.3 The document responds only to the sections relating to the north of the river within Thurrock.

## 2 General Comments

### 2.1 Community Consultation

- 2.1.1 Ward summaries - the purpose of the community consultation is to seek the views of residents in these areas. Previous consultation responses specific to local concerns, separating responses into business/local resident, category of issue, description of issue and issue response would need inclusion within the ward summary in order there is understanding of issues pertinent to the local community and the response to these concerns.

### 2.2 Lack of local benefits and impact on Wards

- 2.2.1 LTC will have long-term impacts and 6-8 years of disruption that may or may not be mitigated. Relevant to all wards, there is a lack of real benefits for the Council from LTC, in terms of provision of open space, increased connectivity, active travel, investment, and legacy in terms of local regeneration.
- 2.2.2 Benefits need to be secured in the DCO. Resolutions of some issues requires a more robust approach to the mechanisms needed to secure mitigation and other measures, i.e. mitigation and other measures need to be legally binding, through obligations, Agreements or independent monitoring and verification of CoCP, Travel Plans, wider network improvements, etc.
- 2.2.3 Thurrock Council Local Plan (Issues and Options – Dec 2018) sets out the proposed future growth options for housing (page 57) and broad locations of employment land (page 26), which includes Port of Tilbury. Thurrock will see major future growth, with the majority in the Green Belt, circa 24,000 new jobs, 30,000 new homes and future port development. LTC would result in strategic issues (as set out below) for existing communities, employment areas and ports, as well as for future growth in Thurrock. This conflicts with the project's objective 'to **support sustainable local development** and regional economic growth **in the medium to long term**'.
- 2.2.4 Key strategic issues for existing communities and future growth, in all/multiple wards, are set out below:
- i. Without guaranteed delivery of South Ockendon/ TLR junctions or local road network mitigation schemes, there is no certainty that LTC will support connectivity, sustainable growth and the Local Plan.
  - ii. Poor local connectivity and a failure to explicitly plan for and design a scheme with the objective of supporting the delivery of strategic sites for housing and economic growth including new Garden Village Communities and future port expansion.
  - iii. Need to address the impact of noise, air quality, severance and flood risk considerations which has led to an increase in land take in certain locations thereby further reducing the supply of land for development.
  - iv. Greater emphasis should be placed on active travel, and public transport has been overlooked. The scheme provides enormous opportunity to enhance active travel and public transport the local level, which improves health and the environment, and mitigates against a range of adverse impacts such as air/noise pollution and relieving congestion.

## 2.3 Health

- 2.3.1 Generic non-specific ward information is coming through into the ward summaries from technical and other documents, but it does not provide the level of granularity to inform ward level impacts relating to health and wellbeing of local residents.
- 2.3.2 Although health is being picked up in terms of the health profile that is provided within each ward summary it is not being carried through to the impacts and in determining what mitigation is required to support and protect the health and wellbeing of local residents.
- 2.3.3 Similarly, health inequalities are mentioned, but there is no clear information about what mitigation will be employed to reduce these inequalities.
- 2.3.4 Throughout each of the ward summary chapters' reference is made to changes in air quality, noise and other environmental factors as temporary but there is no clear definition of what is meant by the term 'temporary in the context of the project. This should be made clearer to allow an informed understanding of potential impacts and we reserve the right to comment fully when this has been updated.
- 2.3.5 Throughout the ward summaries there is an inconsistent application of the methodology to different environmental elements. For example, mitigation measures to reduce the impact of light pollution at night is considered for heritage but there is no mention of this in relation to population and human health. Similarly, green bridges as a form of mitigation are mentioned in relation to habitats and biodiversity, but omitted for population and human health.
- 2.3.6 The document makes use of reporting ranges and averages, particularly for noise, however, this does not account for the worst case scenario and therefore ignores intermittent exceedances and as such may not recognise where important mitigation measures are required to protect the health and wellbeing of local residents, particularly those who are vulnerable and may be more sensitive to even small changes in noise.
- 2.3.7 The ward summaries include a section on the impact of traffic and public transport links due to traffic management measures at a ward level, but how do these impacts fit into surrounding wards and the borough more widely in terms of supporting connectivity for local residents and reducing severance. Bus routes and roads are not situated in silo but rather interlink and support residents to access local amenities and social activity opportunities. A further understanding of how closures, diversions and other traffic management measures will impact on different wards throughout the duration of the construction phase will be important in accurately determining appropriate mitigation measures.
- 2.3.8 The ward summaries should fit into the proposed project wide COVID-19 impact assessment, for example, modelling of transport impacts relating to changes in ways of working. It is also necessary to demonstrate what impacts there are on air quality and noise monitoring.
- 2.3.9 General conclusions made about different environmental factors do not appear to be consistently applied across the environmental sections of the document. For example, in the Chadwell St Mary Ward Summary it is concluded that there will be no significant noise impacts in the noise and vibration section of the report. However, paragraph 630 and the corresponding bullet points state that there will be significant adverse effects relating to noise.
- 2.3.10 The health profiles and information relating to the local health needs of residents in each ward is first introduced in the Population and Human Health section of each ward summary. We believe that it should be also introduced during the ward context setting section of each summary to fully set the context early on.
- 2.3.11 There is more up-to-date data which could be used to inform the health profiles for each ward summary. This information is available via Public Health England's Local Health website. We

would also advise that Highways England ensure that all relevant ward level health data be included in each ward summary to ensure that all vulnerable groups and populations are accounted for, in determining impacts and associated mitigation needs.

2.3.12 Further consideration is needed in terms of Walkers, Cyclists and Horse-riders (WCH) in relation to traffic management measures and footpath, bridleway and cycle route diversions and closures, particularly during the construction period, but also extending into the operational phase. These forms of physical activity and active travel modes are important for promoting both physical and mental health.

2.3.13 There is no consideration of cumulative effects provided at a ward level.

## **2.4 Contamination / Ground Conditions**

2.4.1 Should ground instability be included, such as slopes, faults, karstic features and compressible ground?

2.4.2 In the contamination section for each ward a plate showing the ward boundary, project features (including flood compensation ponds) and identified credible contamination sources (with the reference using in the CSM).

2.4.3 Summary Table

- i. Identify whether or not there are credible potential sources of historical contamination identified. Acknowledge the potential for sources identified as low hazard potential and unidentified ground conditions. Where there are no credible sources identified within a ward clarity on whether present on adjacent wards and potential for migration.
- ii. How is UXO identified and considered?
- iii. If it is considered that historical contamination is unlikely to be significantly affected during the construction work this should be justified noting that unlikely to be acceptable unless no in-ground works of any kind and if haul roads and stockpiles are isolated from the contamination source/is it certain contamination is not present at surface. Preference would be to acknowledge potential for impacts and that these are to be minimised through mitigation.
- iv. Mitigation of historical contamination impacts – as well as a discovery strategy/watching brief it is understood that further intrusive investigation and ground condition assessment is to be undertaken by the contractor to inform detailed design – both should be identified as core mitigation as currently there is a high degree of uncertainty regarding the hazards and what mitigation is to be deployed.
- v. The sentence 'Where contamination is identified during ground investigation work, site-specific remediation would be completed in consultation with the local authority' should be amended to 'The identification, design and completion of any remediation (including that for historical sources, unidentified or discovered ground contamination and new/created sources (spills etc) will be undertaken in consultation with the local authority'.

2.4.4 The sentence 'There is the risk of accidental spillages of oils, cement and fuels from the movement of construction traffic and the storage of materials' should be split into the two impacts - replaced by:

- i. There is the risk of creating contaminated ground through accidental spillages of oils, cement and fuels.

- ii. There is the risk of release of contaminated dust/ asbestos fibres/ hazardous gases due to in-ground excavations, the movement of construction traffic and/or the storage of spoil arisings.

## 3 Review of Ward Impact Summaries - North of the River - Parts 1 and 2

### 3.1 Comments

Table 3.1: The Council's Comments on the Ward Impact Summaries - North of the River – Parts 1 and 2

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
<b>Chapter 1: Introduction</b>		
para 1-11	Overview of the Ward impact summaries	Very ambiguous wording - may, could, if.
<b>1.2</b> para 12-14	<b>Ward selection</b>	<p>If there are traffic impacts at the Orsett Cock roundabout and further afield into Stanford-le-Hope and Corringham then should these be considered for ward impact profiles?</p> <p>Would like a comparison to the Dartford crossing air quality/ light pollution and noise levels and the reach of these for comparison.</p>
<b>1.3</b> para 15-16	<b>Topics covered in each chapter</b>	<p>Within section 1.3 page 8 the description of impacts covered includes Archaeology, and does not include built heritage. Unfortunately, this seems to be the last time archaeology is considered apart from references to scheduled monuments.</p> <p>No commentary is made on waste management within the document as a whole, waste is managed on a Council/Regional level so this is not necessarily an issue, but HE could consider including details on how the impact of storing wastes will be mitigated in the compounds.</p>
	Table 1.2: Topics in each ward impact summary	The lack of consideration of archaeology is then highlighted in Table 1.2, where it is only included as scheduled monument references.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		No section on cumulative impacts at a ward level.
<b>1.4</b>	<b>Transport</b>	
1.4.1 para 17-20	Construction traffic	<p>See the Council's separate comments on the draft Development Consent Order (dDCO), the Code of Construction Practice (CoCP) and Register of Environmental Actions and Commitments (REAC), Outline Traffic Management Plan for Construction (oTMPfc), the Framework Construction Travel Plan (FCTP) and the Construction Update - as set out in relevant Appendices.</p> <p>The Council has reviewed cordon construction models covering the borough for each phase of construction and has provided feedback. The Council has also raised concerns about certain assumptions for the base case model and particularly concerns relating to the validation of the model on the local road network and with no testing of the local road peak hour. Updated construction modelling evidence has not been provided within the consultation, yet the consultation documents appear to be based upon this out-of-date data. Without this updated evidence, the Council cannot fully comment on the construction impacts.</p> <p>The construction modelling provided to date raises the following concerns (Reference: Thurrock Cordon Model Construction Modelling Review, May 2021) regarding the high volumes of construction traffic (either construction vehicles or staff vehicles) at:</p> <ul style="list-style-type: none"> <li>▪ Rectory Road, Orsett Village</li> <li>▪ Stifford Clays Road, Orsett Village</li> <li>▪ B186, North Ockendon</li> <li>▪ B186, South Ockendon</li> <li>▪ B188, Baker Street village</li> <li>▪ A1014 Northbound</li> <li>▪ A128 Brentwood Road</li> <li>▪ A1089</li> <li>▪ Buckingham Hill Road Northbound</li> <li>▪ A13 West Bound at Stanford Le-Hope Bypass</li> </ul>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1	The Council's Comments
	<ul style="list-style-type: none"> <li>▪ Orsett Cock Roundabout</li> <li>▪ Manorway Roundabout</li> <li>▪ M25 Junction 30</li> <li>▪ Asda Roundabout</li> <li>▪ Daneholes Roundabout</li> <li>▪ Marshfoot Road roundabout</li> </ul> <p>Further to the strategic modelling that HE is undertaking on the Strategic Road Network, detailed assessment should be carried out where there is significant impact on the Local Road Network (e.g. junction capacity assessments, shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.).</p> <p>It is not clear what mitigation (including road maintenance) is proposed to accommodate this traffic. This should be detailed in the Transport Assessment.</p> <p>The Environmental Impact Assessment (EIA) does not include an assessment of the usual transport environmental criteria, such as: driver delay fear intimidation, severance, pedestrian and cyclist delay and amenity; safety and accidents; hazardous loads, etc. There are some significant increases in traffic during construction (and operation), which may cause some adverse impacts on pedestrians, including school children and elderly using the adjacent footways or crossing the routes, for example. Mitigation has not been identified, as a result of not completing this assessment work. HE must provide an assessment of these effects and it is not adequate to state that WebTAG guidance does not require the assessment or to rely on flawed strategic modelling to indicate effects on local networks. These points would then not be identified within the Transport Assessment if the base and scenario modelling for the construction and operation periods is not correctly undertaken. At present, the consultation has not been effective as a result of the failure to have provided material in relation to these matters to be consulted upon.</p> <p>The details of any monitoring and enforcement to minimise impact and prevent exceedances have not been provided.</p>



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>It is understood that construction traffic would not make optimum use of rail and marine transport, and these modes of transport are largely dismissed by HE with no commitments for its contractors to use rail or marine transport, which in turn will not minimise the impacts on the road network, including A1089. HE must reflect on the use of non-road transport opportunities during the construction period and incentivise its contractors to use those modes. Suitable governance and compliance regimes need to be put in place to ensure that the contractors meet the commitments that HE is yet to make. These matters need to be consulted upon in due course.</p> <p>Monitoring Construction Traffic Impacts - it is unclear within the oTMPfc and the Construction Update as to what road network impact monitoring is proposed before and during the construction period. Monitoring will be required to ensure impacts of the construction logistics, workforce travel and traffic management required by the scheme on the road network are understood, being actively managed/enforced and impacts on local communities are being mitigated. The oTMPfc proposes a monitoring report (and the FCTP proposes monitoring and adjustment) but the scope of monitoring proposed is not clear, no monitoring scheme or KPIs are provided in any detail. The method of governance of the contractors must be set out within the management plans which accompany the DCO, including the oTMPfc, the FCTP and the oMHP. The Council has prepared separate responses on the draft versions of those management plans as part of the consultation process.</p>
1.4.2 para 21-25	Operational traffic	<p>Further details of the Council's concerns relating to operational aspects of the project are provided through its responses to the Operations Update review and other engagement responses.</p> <p>Of key relevance is the Council's concerns regarding the base model not replicating local traffic conditions, which remain as per previous comments made to HE through previous consultation reviews and other engagement. The assertions and assumptions made about impacts on specific wards within this Ward Impact Summaries document are therefore not considered reliable and are therefore potentially misleading. In the absence of such data the Council do not consider that this round of consultation has been effective or lawful in that sense.</p> <p>At the time of review of the non-statutory consultation documents, no updated transport models were provided for review alongside this consultation, therefore, we refer to the last submitted model review document issued to HE in June 2020 (LTC Consultation - Review the Effects of the LTC within Thurrock - Sup Con Modelling Review), as well as</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>the local junction assessments report (LTC Consultation - Junction Assessment and Mitigation Analysis issued in October 2020) undertaken to identify possible mitigation at key areas within Thurrock.</p> <p>Detailed responses have been provided by the Council during engagement with HE and in response to other consultation material. The Council has repeatedly expressed many concerns with the proposed configuration of the LTC and its interchanges and the impacts on the local travel network. These are not repeated in response to this Ward Impacts Summaries.</p>
1.5 para 26-36	<b>Environmental Impact Assessment</b>	<p>The ward summaries alongside other technical documents are still largely omitting information about the opportunities for maximising health benefits for local residents.</p> <p>HE does not propose to assess the effects of the Project on the Transport network, including: severance, fear and intimidation, delays and safety. It is not possible for the Council to analyse or respond on the environmental effects of the project without such an assessment, which should look at the impacts not only along the line of the Project but the effects on the transport network affected by the construction phases, e.g. construction traffic and workforce traffic use of unsuitable local roads; or during the operational phase on local junctions due to displaced and induced traffic.</p> <p>The absence of a robust assessment of effects is allowing HE not to mitigate effects which the Council believes will be derived. As above, the consultation has not been effective as a result of the failure to have provided material in relation to these matters to be consulted upon.</p>
1.6 para 37-39	<b>Air quality and noise assessments</b>	
para 40-45	Air quality assessment	Monitoring of PM2.5 during construction and operation should be included as per the latest CoCP and REAC.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 46-49	Air Quality Standards	There are population health improvements below the Air Quality Standards. Understanding the detail of the modelled changes is important in determining health effects and impact on health inequalities yet the approach appears to solely focus on exceedances of the AQS and significance of effect.
<b>Chapter 12: East Tilbury ward</b>		
<b>12.1</b>	<b>Overview</b>	
12.1.1 para 62-63	About this ward	As mentioned in general comments section – the health profile should be included here as part of the context setting section of the chapter.
12.1.2	Summary of impacts	
	Table 12.1: Summary of impacts during the project's construction and operation	Refer to the Council's response to section 1.5 (paragraphs 26-36) on the absence of assessment in the EIA of environmental effects on the travel network.
	Traffic	Refer to the Council's response to section 1.5 (paragraphs 26-36) on the absence of assessment in the EIA of environmental effects on the travel network. There are some significant increases in traffic in this ward during construction (and operation), which may cause some adverse impacts on pedestrians, including school children and elderly using the adjacent footways or crossing the routes, for example. Mitigation has therefore not been identified as a result of not completing this assessment.  See the Council's separate comments in response to the Construction Update and Operations Update document within Appendix H.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>HE does not note, at Table 12.1, the impacts of workforce travel that will be experienced within East Tilbury where workers are able to drive to Compounds 5 and 5a via Station Road from East Tilbury and Linford. No mitigation is proposed to counter the impacts on the local road network of the movement of workforce vehicles. The Council is responding to the proposed draft FCTP and has expressed concern about the ability of the contractors to reduce car borne travel to the remote compounds. It is understood that the predictions of car traffic as set out in Table 12.2 are of vehicle numbers having applied HE's unachievable proposed mode share reductions, and so how does HE propose to mitigate the effects of this residual and large movement of vehicles?</p> <p>HE refers to mitigation during the operational state as being network monitoring. This does not imply any action should the scheme be found to be impacting on the local road network and is therefore not mitigation. There is no commitment from HE to act on any impacts.</p>
	Public transport	See the Council's comments in response to Construction Update (Appendix H), in relation to impacts on bus network and how these impacts will need to be mitigated.
	Footpaths, Bridleways and cycle routes	<p>A general point applicable to most chapters. Where footpaths, bridleways and cycle routes are closed or diverted during construction or permanently there should be appropriate publicity and clear, high quality signing.</p> <p>This point is applicable to most of the ward summaries. Consideration needs to be paid to the knock-on effects of diverted, temporarily or permanently closed footpaths, bridleways and cycle routes during construction and operation across wards in terms of promoting opportunities for WCH for physical activity, commuting and leisure. These routes do not sit in silos or end at the ward boundaries and represent an important means of recreation and travelling, promoting connectivity and reducing severance which is important for residents' health and wellbeing, particularly for vulnerable groups such as older people, those with no access to a car or other vehicle.</p>
	Visual	<p>A general point applicable to most chapters. The commentary will often say visual effects will be experienced by residents on edge of settlement. No account is taken of those residents who travel through these areas every day and will directly experience the visual disturbance.</p> <p>Light pollution impacts on residents is omitted in relation to human and population health. Light pollution can cause sleep disturbance and deprivation which in turn can have negative impacts on residents' mental health and wellbeing.</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	Noise and vibration	Consideration about the impacts of night time noise arising from construction taking place over a 24 hour period is required, particularly in relation to the potential impact of local residents e.g. sleep deprivation and disturbance. The ward summary only appears to suggest monitoring of daytime noise will be undertaken. A rationale for not undertaking night time monitoring is requested.
	Air quality	No mitigation is proposed to address increases in NO2, an understanding of the rationale for this beyond stating that there are no significant changes to air quality and thus no further monitoring is needed is required. Even small changes in air pollution can be detrimental for vulnerable groups such as those living in deprivation, with existing health conditions, older people and other vulnerable groups.
	Health	<p>This section states that working hours are part of the mitigation measures proposed to protect health and wellbeing of local residents but as stated in the noise and vibration section above some of the construction including of the north tunnel at the northern tunnel compound would be undertaking on a 24/7 basis which offers no respite to residents. As such it is unclear how this has been determined to be included as part of mitigation – see response to CoCP and REAC within Appendix C.</p> <p>Health inequalities are mentioned but there is no clear information about what mitigation will be employed to reduce these inequalities.</p>
	Built heritage	Impacts are only noted for Scheduled Monuments. No mention of listed buildings or conservation areas (East Tilbury and West Tilbury Conservation Areas for example). Mitigation seems predominantly to refer to lighting but there will be other environmental and visual impacts. The table section on visual impacts notes that Tilbury Viaduct will feature in some views from East Tilbury - this is potentially from the end of Bata Avenue within the Conservation Area and containing listed buildings. Furthermore noise and vibration notes the use of noise barriers on the route including Tilbury Viaduct which would increase its visual prominence.
	Contamination	The only contamination source referred to here is the East Tilbury landfill. All the credible sources of contamination in the ward should be identified - a plate showing the locations of the sources would be helpful together with the references used in the CSM report so an interested party can more easily link the information.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>Construction - Only the drawing of contaminated water from the landfill is identified as an impact. All other potential impacts should be identified such as the migration of contaminated dust /asbestos fibres / ground gases. Reference should be made to the REAC noting that this currently does not address/capture the need to provide measures for the protection of off-site human health. Given that further investigation and assessment is required to determine whether and what mitigation measures are required for <b>all</b> the preliminary pollutant linkages this should be acknowledged here.</p> <p>Operation – States no impacts and no mitigation. This is not correct. Potential for spills/incidents, residual exposed contamination and re-use of arisings, etc.</p>
<b>12.2</b>	<b>Project description</b>	
12.2.1	Construction	
para 64-68	Construction activities	<p>See the Council's comments on Construction Update (Appendix H). In particular, Muckingford Road must be protected from the impacts of construction activity in the early years of the Project before haul routes are established within the line of the LTC. Without suitable mitigation and protections to vulnerable users, such those access the recreation ground at the northern end of Muckingford Road, and residential properties on that corridor, construction traffic must not be permitted to use Muckingford Road to access the works including the construction of the realigned section that will form the overbridge of LTC or other early works.</p> <p>As in other documents, HE is silent on the route for removal of the TBMs. If this is to be to the south of the tunnel the matter is not for the Council to comment. If it is to be wholly dismantled to be brought back to the north portal then there must be commitments from HE that the sections will be removed by marine transport from PoT/PoT2.</p> <p>HE also continues to be silent on whether the tunnel will have a secondary lining, stating only that the tunnel will be formed of precast segments. A secondary lining will require substantive quantities of material that must be covered within the oMHP and should be moved by non-road transport, where practicable.</p>
para 69-77	Construction compounds	<p>See the Council's comments on Construction Update (Appendix H).</p> <p>Table 12.2 does not include the predictions for the associated LGVs that would attend these compounds in addition to the HGVs and workers' cars.</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		No local modelling has been carried out of the effects of the increase in workforce travel through East Tilbury to access the compounds around the north portal. Table 12.2 indicates in excess of 700 cars per day at peak construction (i.e. over 1400 movements of workforce cars added to the local road network per day on average). No assessment has been done on the severance and delay effects of these movements including along the narrow Love Lane, Station Road and at the level crossing on Princess Margaret Road. The EIA does not include an assessment of impacts being provided and the Council is, therefore, not in a position to respond on those concerns.
para 78-85	Utilities	See the Council's comments on Construction Update (Appendix H).
para 86-88	Construction routes on public roads	See the Council's comments on Construction Update (Appendix H).  The Council is concerned that insufficient work has been undertaken to enable HE to make firm commitments as to the type and amount of material that can be transported by marine transport including via PoT and PoT2. At present whilst contractors are encouraged to investigate this further as part of their MHPs and TMPs there is no firm commitment to do so. Maximising use of marine transport will help reduce impacts on the road network and local communities during the construction period and help reduce the schemes environmental and carbon impacts.
para 90-91	Construction working hours	As per comments above relating to noise and vibration and human health – where tunnel works at the northern tunnel compound located in East Tilbury will be undertaken at night, what additional mitigation measures would be provided to offset the potential impacts on local residents in terms of reducing the risk of sleep deprivation and disturbance? Also need to consider how construction working hours may impact post COVID-19 with more people working from home and spending more time at home. An update on the status of the project wide COVID-19 impact assessment would be welcome.
para 94-95	Impacts on private recreational facilities	More detail about the potential impact on Linford allotment due to underground utility facilities needing to be installed here is required. Allotments are often seen as places of nature and tranquillity and as such these works may deter people from visiting which could impact on their mental health and wellbeing and for certain groups such as older people living alone, may reduce their opportunities for social activities

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 96-99	Traffic management	<p>See the Council's comments on oTMPfc and Construction Update.</p> <p>The Council has made representations on the matter of which organisation will be the approving body. It is the Council's opinion that it should approve the management plans associated with the construction period as those plans directly impact its ability to manage its local road network. It is insufficient to be a consultee where HE will be at liberty to not take on board responses from the Council.</p> <p>Table 12.3 Main Traffic Management Measures in East Tilbury, page 45 – more detail required about the mitigation measures that will be employed to reduce the impact on local residents of traffic management measures, particularly where these measures overlap across several roads within East Tilbury. Recognition should be paid to the existing traffic constraints within this ward such as the level crossings and how this may be further impacted by road diversions, closures and movement measures in terms of supporting residents to access amenities, health and other services.</p>
12.2.2	Operations	
para 100-101	The completed project	See the Council's comments in response to section 1.4.2 (paragraphs 21-25) of this Ward Impact Summaries on the operation effects of the Project on local roads.
para 105-110	Impacts on open space and common land	<p>How would Highways England ensure that relevant mitigation measures are implemented at Tilbury Fields in terms of the potential noise and air quality impacts arising from the park's close proximity to the northern tunnel entrance? How would Highways England ensure a safe, aesthetically pleasing, accessible park to encourage residents to use the space?</p> <p>The chapter states in paragraph 106 that Tilbury Fields will be a new open space facility connected to existing open spaces. How would Highways England look to strategically link this new park to existing footpaths and other open spaces locally?</p>
<b>12.3</b> para 111	<b>Traffic</b>	
12.3.1	Construction	



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 112-113	Construction Impacts	See the Council's comments on Construction Update and in response to section 1.4.1 para 17-20 regarding the Council's concerns about certain assumptions for the base case model and particularly concerns relating to the validation of the model on the local road network and with no testing of the local road peak hour.
para 114-115	Measures to reduce construction traffic impacts	See the Council's comments on oTMPfc and Construction Update (Appendix H).  New bridge / viaduct structures – there are general statements and construction methodologies describing bridge and structures being 'built offline' or 'temporarily realigned'. Given the scale of works required there is little specific information given in relation to these works within the consultation material. Further site specific drawings and information are required by the council and other stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community.
12.3.2	Operations	Figure 12.3 – more information is required about where the new or diverted WCH routes link to and how will they support connectivity within and beyond East Tilbury in terms of promoting opportunities for commuting, leisure, physical activity, time spent in nature, all of which are important factors for promoting health and wellbeing.
para 116-120	Operational impacts	Refer to the Council's response to section 1.4.2 of the Ward Impacts Summaries (paragraphs 21-25) which expresses the headlines of its concerns raised about the operation of the Project.  Minimal impact on local roads is expected to occur within this ward, with the exception of the increase of LTC traffic, also noted and as stated previously no consideration of the Tilbury Link Road has been incorporated within the design which would have a significant impact on the traffic levels in this area, especially so if a connection to East Tilbury were to be made. See 10.6 of the Review of Transport Planning Evidence Report for the LTC issued March 2021.
para 121	Changes to journey times	No specific comment on changes to journey times for this ward, however, general journey time concerns remain, please see Operational Update response for further information.
para 122-124	Operational traffic flows	HE states that 'traffic lights or roundabouts would be necessary at some minor junctions away from the main route'. The Council is not aware of any such proposed mitigation and so must see these proposals so as to form a response.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		See the Council's separate response to the Wider Network Impacts Management and Monitoring Plan, where the Council raises significant concern over the realism of providing HE/DfT funded mitigation of problems identified following construction of the Project. HE must commit real funding to address subsequently identified problems where the assessment of impacts is flawed in the pre-consent evidence. It is inappropriate for HE to rely on funds which have not been ringfenced for this purpose. Stronger commitments must be captured within the legal binding DCO and not left for future negotiation to which the Local Authority may be little more than a consultee.
<b>12.4</b>	<b>Public transport</b>	
para 129	Buses	See the Council's comments in response to Construction Update (Appendix H), in relation to impacts on bus network and how these impacts will need to be mitigated.
<b>12.5</b>	<b>Footpaths, bridleways and cycle routes</b>	
para 132	Existing situation	It should mention the riverside route connects to Tilbury rather than Chadwell.
12.5.1	Construction	It recognises there would be significant disruption during construction.
para 133	Construction impacts	One route BW58 would be closed for up to 5 years. For several route, including this, it states that LTC is currently working to secure potential temporary diversions. When will more information be provided about where this would run and when they have been secured? It is not possible to properly assess the impacts until the Council has this information.  See comments on above signage.
12.5.2	Operations	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 134	Operational impacts	The general proposals have been presented to the council previously. We have not been provided with detailed specifications, etc.
<b>12.6</b>	<b>Visual</b>	
12.6.1	Construction	
para 140-144	Construction impacts	Provides a summary of views that would be impacted rather than an assessment of impact. That is provided in the ES however. The focus is on those residents facing directly onto the route. All residents will be affected to some extent when travelling to and from the village.
para 145-146	Measures to reduce visual impacts during construction	There is an acknowledgement that the compounds would require grassed earth bunds to mitigate their impacts during construction.
12.6.2	Operations	
para 147-152	Operational impacts	This confirms that residents will still be able to see the tops of HGVs, gantries, etc., above the tops of the false cuttings. The text needs to be updated to refer to Tilbury Fields, which will not return to agriculture.
<b>12.7</b> para 154	<b>Noise and vibration</b>	Figure 12.20 noise impacts during operation page 88 – some of the minor to major increases in noise during operation occur in close proximity to Coalhouse Fort, although it may be negligible. What mitigation measures will be implemented to reduce impacts on this heritage site in terms of a place for recreation, time spent in nature and tranquillity, all of which support mental health and wellbeing for local residents?
12.7.1	Construction	
para 174-176	24/7 construction working	Construction impacts likely due to night/weekend working. No commitment at this stage to the specific measures.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		As noted above the rationale for excluding night time noise modelling and monitoring is required.
para 177	Construction traffic noise impacts	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures.
para 178-180	Measures to reduce construction noise and vibration	Reference to REAC to provide noise-reduction measures. No monitoring mentioned. Mitigation mentions: <i>'keeping construction vehicle traffic to a minimum by using local suppliers, where possible, local workforces and reducing the transport of material for earthworks construction.'</i>  Can this be committed to? What would the resultant noise impacts be reduced to?
12.7.2	Operations	
para 181-183	Operational traffic noise impacts	No updated modelling undertaken.
para 184-185	Measures to reduce noise and vibration during operations	No further measures other than what is proposed in the REAC. There are some moderate and major noise impacts for residential areas in East Tilbury and Linford identified in figure 12.20 which will require additional mitigation and compensation measures.
<b>12.8</b> para 186	<b>Air quality</b>	
12.8.1	Construction	
para 188-190	Construction impacts	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material or been used to inform air quality impacts.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 191	Measures to reduce air quality impacts during construction	Figure 12.21 predicted changes in NO2 levels within East Tilbury ward once road is open – as per response above and as noted in REAC and CoCP – will be PM2.5 be assessed as part of operational monitoring?
12.8.2	Operations	No updated transport models have been provided alongside this consultation, therefore, we refer to the last submitted model review document issued to HE in June 2020 (LTC Consultation - Review the Effects of the LTC within Thurrock - Sup Con Modelling Review) as well as the local junction assessments report (LTC Consultation - Junction Assessment and Mitigation Analysis issued in October 2020) undertaken to identify possible mitigation at key areas within Thurrock.
para 192-194	Operational impacts	There are predicted changes to traffic into Linford (Buckingham Road) of over 40%. Should air quality be modelled and monitoring for changes along this route affecting residents?
<b>12.9</b>	<b>Health</b>	
para 196-199	Existing situation	There is updated data available for some of these points on local health which are worth including. These can be found on Public Health England's Local Health website.  This information as noted above should be included in the context setting section of the chapter and should also link back and thread through all of the environmental sections and in terms of mitigation.
12.9.1	Construction	
para 200-202	Construction impacts	As noted above this does not feed in the health needs of the local population as outlined in the health profile and there is no reference to the ES or HEqIA for further information.
12.9.2	Operations	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 205-207	Operational impacts	As noted above this does not feed in the health needs of the local population as outlined in the health profile and there is no reference to the ES or HEqIA for further information.
para 208	Measures to reduce operational health impacts	No further mitigation is described other than what is proposed in the CoCP and REAC. This community is likely to experience adverse effects and cumulatively, so further mitigation is sought on enhancing the quality of life for this community.
<b>12.10</b>	<b>Biodiversity</b>	
para 209-211	Existing situation	This section refers to 'areas of brownfield sites next to the Thames containing large numbers of watercourses. No reference is made to the nationally important invertebrate populations which have required LTC to include Tilbury Fields as part of its mitigation provision.
12.10.1	Construction	
para 212	Construction impacts	The ecological impacts in this ward have been subject to extensive discussions with the Council and Natural England.
para 213-217	Measures to reduce the impact of construction on biodiversity	The changes to the use of the site west of Coalhouse Fort should be included, as it is one of the largest mitigation sites.
12.10.2 para 218	Operations	As noted in the general comments above the content relating to operational impacts appear to be generic and has been applied across a number of ward summaries but does not give a clear picture about the effects specific to the ward or the people living and working there.
<b>12.11</b>	<b>Built heritage</b>	No assessment of non-designated archaeology. High potential of destruction of palaeolithic deposits. Potentially important palaeo-environmental sequences impacted by tunnel mouth.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 222-223	Existing situation	No inclusion of archaeological impact.
	Scheduled monuments	No assessment of setting of scheduled monuments or conservation areas.
para 224	Listed buildings	Slightly more description on the Grade II listed buildings might be useful - not a run through of all 35 but an indication of where they are clustered (East Tilbury and West Tilbury for example) and those that are in close proximity to the scheme.
12.11.1	Construction	
para 225-226	Construction impacts	Not clear why impacts at night/weekends are important here. Needs input from built heritage specialist to note the indirect impacts on the settings of the assets (not just Scheduled Monuments, but listed buildings and Conservation Areas too).
para 227	Measures to reduce construction impacts	Need to revise the definition of setting here and address other issues as well as lighting.
para 229	Measures to reduce the built heritage impacts of the operational project	Are there other measures worth pointing out as well as minimising road lighting?
<b>12.12</b>	<b>Contamination</b>	
para 230-231	Existing situation	The text should reflect whether more potential contamination sources were identified from historical mapping and whether those identified are only the ones considered 'credible'.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		See general comment regarding instability hazards. Why is ground investigation not mentioned? What are the potential contaminants?
12.12.1	Construction	
para 232-233	Construction impacts	Should identify the potential release of contaminated dust/asbestos fibres. Should identify the potential change to existing gas regimes and creation of offsite migration of ground gases.
para 234-239	Measures to reduce contamination management impacts of construction	234 Soil handling and re-use guidance – add the reference for the outline Materials Handling Plan. The oMHP doesn't cover re-use criteria is there an outline Re-use Guidance document? 235 add 'in line with the Incident Management Plan to be presented in the topic specific Environmental Management Plan'. 236 It is understood that enabling works will include further intrusive investigation and assessment by the contractor(s) to identify whether and what mitigation is required – for clarity this should be identified here as currently worded could be construed as based on the currently available GI data. Add 'in line with the Discovery Strategy/Watching Brief Protocol to be presented in the topic specific Environmental Management Plan'. 237 as above for 236 unless utility route specific GI has been completed.
<b>Chapter 13: Tilbury Riverside and Thurrock Park ward</b>		
<b>13.1</b>	<b>Overview</b>	
13.1.1 para 243-245	About this ward	This is an area of marshland, where will the water be going when the compounds are built?
13.1.2	Summary of Impacts	How is this being seen in the wider perspective of cumulative effects of traffic along the A1089 from the additional construction traffic from the Battery Storage Unit (which it is stated may be built at the same time), Tilbury Freeport, the 2000+ potential car journeys for the London Resort and additional commuter traffic from the Clipper Service to London?



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	Table 13.1 Summary of impacts during the project's construction and operation	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.
	Traffic	<p>Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.</p> <p>See comments in response to Construction Update and Operations Update (Appendix H).</p> <p>The largest impact is noted to be A1089 and at ASDA roundabout both during construction and operation, which is also a key concern of the Council. Further detail on the operation of ASDA roundabout has been provided within LTC Consultation - Junction Assessment and Mitigation Analysis report issued in October 2020. HE must set out how impacts are to be mitigated.</p>
	Public transport	Text later in chapter identifies multiple buses will be impacted by traffic management during construction rather than just one - see the Council's comments in response to Construction Update (Appendix H) in relation to impacts on bus network and how these impacts will need to be mitigated.
	Footpaths, bridleways and cycle routes	A general point applicable to most chapters. Where footpaths, bridleways and cycle routes are closed or diverted during construction or permanently they should be appropriate publicity and clear, high quality signage.
	Health	Health inequalities are discussed, but no particular mitigations are suggested to alleviate these.
	Built Heritage	<p>No inclusion of archaeological deposits.</p> <p>Light pollution is noted here but not in terms of a potential health problem. No mention of Grade II* listed Riverside Station. Are there other considerations as well as lighting? Impact on setting of Tilbury Fort from new landscaping at tunnel portal.</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	Contamination	<p>Should identify whether or not credible potential sources of historical contamination have been identified.</p> <p>Should clarify why this historical contamination is unlikely to be significantly affected during the construction work – only acceptable is absolutely no in-ground works of any kind and if haul road be isolated from the contamination source/is it certain contamination is not present at surface. Ditto stockpiles. Preference would be to acknowledge potential for impacts and that these are to be minimised through mitigation.</p> <p>Mitigation In respect of historical contamination it is understood that further intrusive investigation and ground condition assessment is to be undertaken by the contractor as part of detailed design. The identification, design and completion of any remediation will be undertaken in consultation with the local authority.</p>
<b>13.2</b>	<b>Project description</b>	
13.2.1	Construction	
para 246-249	Construction activities	See the Council's comments on Construction Update (Appendix H).
para 250-254	Construction compound	See the Council's comments on Construction Update (Appendix H).
para 255-258	Utilities	See the Council's comments on Construction Update (Appendix H).
para 259-261	Construction routes on public roads	See the Council's comments on Construction Update (Appendix H).and in response to paragraphs 86-88 regarding HE needing to make firm commitments as to the type and amount of material that can be transported by marine transport, including via PoT and PoT2.
para 262-264	Traffic management	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 " <i>Traffic Management</i> ".
13.2.2	Operations	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 268	The completed project	See the Council's comments in response to section 1.4.2 (paragraphs 21-25) of this Ward Impact Summaries on the operation effects of the Project on local roads.
<b>13.3</b>	<b>Traffic</b>	
13.3.1	Construction	
para 274	Construction impacts	<p>See the Council's comments on Construction Update (Appendix H).and in response to section 1.4.1 para 17-20 regarding the Council's concerns about certain assumptions for the base case model and particularly concerns relating to the validation of the model on the local road network and with no testing of the local road peak hour.</p> <p>The construction modelling provided to date raises the following concerns (Reference: Thurrock Cordon Model Construction Modelling Review, May 2021) regarding the high volumes of construction traffic (either construction vehicles or staff vehicles) in Tilbury Riverside at:</p> <ul style="list-style-type: none"> <li>▪ A1089</li> <li>▪ Asda Roundabout</li> </ul> <p>Detailed assessment should be carried out where there is significant impact (e.g. junction capacity assessments, shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.).</p>
para 275-276	Measures to reduce construction traffic impacts	<p>See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H).</p> <p>New bridge/viaduct structures – there are general statements and construction methodologies describing bridge and structures being 'built offline' or 'temporarily realigned'. Given the scale of works required there is there is little specific information given in relation to these works within the consultation material. Further site specific drawings and information are required by the council and other stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community.
13.3.2	Operations	
para 277-281	Operational impacts	Refer to the Council's response to section 1.4.2 of the Ward Impacts Summaries (paragraphs 21-25), which expresses the headlines of its concerns raised about the operation of the Project.  Increase in flows have been identified along A1089, Dock Road and Fort Road which influence ASDA roundabout. Concerns remain regarding the operation of the model at this location and lack of local model validation, which could underestimate the impact at this junction.
para 282	Changes to journey times	Refer to the Council's response to paragraph 121.
para 283-285	Measures to reduce impacts on traffic flow	No consideration of any mitigation measures have been outlined, previous review by Thurrock has identified the need for mitigation at ASDA roundabout, see LTC Consultation - Junction Assessment and Mitigation Analysis issued in October 2020 for further information.
<b>13.4</b>	<b>Public transport</b>	
13.4.1	Construction	
para 288-289	Rail	HE must confirm whether the rail freight movements to and from DP World have been taken into account in its assessment of impacts?
para 290	Buses	Multiple buses are impacted during construction - see comments on Construction Update (Appendix H) and above in traffic impacts on bus impacts.
<b>13.5</b> para 296	<b>Footpaths, bridleways and cycle routes</b>	While there are no direct impacts on rights of way within the ward the west end of the Two Forts Way connects is within the ward. Therefore, any impacts along this route will be experienced by residents.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		It is stated that there are not footpaths and cycle routes that will be affected and then later on in the document it talks about how these are being mitigated. This feels to generic and not area specific enough.
<b>13.6</b>	<b>Visual</b>	
13.6.1	Construction	
para 299-301	Construction impacts	This section is incomplete (paragraph 299). Likely to be screened? Contradictory to paragraph 306.
para 302-303	Measures to reduce visual impacts of construction	Agreed there would be few direct visual effects from this ward.
13.6.2	Operations	
para 304-305	Operational impacts	The reference to purpose of Tilbury Fields is out of date.  The landscaping needs to be completed early as it will be six year of construction that will be a blight on the area and affect pride of place as well as house values and mental health.
para 306	Measures to reduce visual impacts of the operational project	Contradictory to paragraph 301.
<b>13.7</b>	<b>Noise and vibration</b>	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 307-312	Existing situation	
13.7.1	Construction	Piling overnight will add considerable to the noise levels.
para 313-323	Daytime construction noise impacts	MAY contribute to noise (ambiguous). Does this take into account the noise of piling? Points 2 and 3 which have been calculated to are not the closest receptors to the proposed works. Why have these been chosen as receptor points, as receptor locations have not been agreed?
para 324-327	24/7 construction working	Does this include night time deliveries along Dry Street and Station road? No equivalent Figures shown for night-time as they were for daytime (i.e. Figure 13.13).
para 328	Construction traffic impacts	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures. It is both appropriate and necessary for the Council to be provided with this information. The water pipe proposal for dock road for 9 months, are there any other utilities upgrades planned for this area in the same timeframe? Can the docks be used more to deliver more large loads? What measures are being put into place to stop traffic rat running via Marshfoot Road and by the two schools that will exist then, to avoid the congestion on the A1089? What are the emergency vehicle plans that are in place for Tilbury and the docks for when the A1089 is congested?
13.7.2	Operations	
para 332-333	Operational impacts	334 – Why are there plans for noise barriers at East Tilbury and not in Tilbury itself? Reference to REAC to provide noise-reduction measures. No monitoring mentioned. Mitigation mentions:

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p><i>keeping construction vehicle traffic to a minimum by using local suppliers, where possible, local workforces and reducing the transport of material for earthworks construction</i></p> <p>Can this be committed to? What would the resultant noise impacts be reduced to?</p>
<b>13.8</b>	<b>Air quality</b>	
para 336	Existing situation	Currently there is an existing concern in Tilbury about a red dust that is frequently seen. What measures will be put in place to investigate this as well as other dust that might increase this. How is the dust from the spoil from the excavation of the tunnel being mitigated?
13.8.1	Construction	
para 337-338	Construction impacts	<p>Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material or been used to inform air quality impacts.</p> <p>Commitment to: 'put in place an Air Quality Management Plan to ensure the measures set out in the CoCP and the REAC would effectively monitor and control dust and exhaust emissions.'</p> <p>Stalling traffic waiting to get into Tilbury will cause tailbacks on 1089 which will have a negative effect on air quality in the surrounding area. 9 months in total.</p> <p>We would expect there to be ongoing monitoring of any potential future impacts.</p>
13.8.2	Operations	
para 340-343	Operational impacts	It is recognised that this areas has significant existing health issues which, although there may not be exceedances of noise, light pollution and poor air quality indicators, will have more adverse effects on the already poor health area due to the accumulation of these factors. For many of these residents the positive health indicators of employment and skills updating will not be applicable to improving their lives.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		Traffic impacts on figure 13.5 show a +40% increase in traffic flows along Dock Road and Calcutta Road in the morning peak. This area is an AQMA, and the additional traffic is likely to contribute to this making it difficult for the Council to achieve reductions required. This needs to be taken into account with air quality modelling undertaken here and monitoring.
para 344	Measure to reduce air quality impacts of the operational project	This community has a number of health considerations which would mean it should be prudent to include additional mitigation and monitoring in this area.
<b>13.9</b> para 345-348	<b>Health</b>	
13.9.1	Construction	
para 349-353	Construction impacts	Two way conversations noted but no mention of how these conversation could result in changes due to feedback.  Cumulative impacts not addressed.
para 354-355	Measures to reduce impacts on health during construction	Light/ noise pollution/ decreased air quality, separation from other parts of the town are all known to have an impact on both physical and mental health and mitigations against these impacts have not been fully explored in the ward profile, especially when aligned to cumulative effects from other developments which will effect this ward significantly re the 1089.  Further measures need to be secured to ensure this community's health outcomes are not made worse by the scheme's construction which is expected to last 6 years.
13.9.2	Operations	



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 356-359	Operational health impacts	Light/ noise pollution/ decreased air quality, separation from other parts of the town are all likely to have an impact on both physical and mental health and mitigations against these impacts have not been fully explored in the ward profile, especially when aligned to cumulative effects from other developments which will effect this ward significantly re the 1089.  Cumulative impacts not addressed.
para 360	Measures to reduce health impacts of the operational project	No discernible measures really noted except for potential to increase employment. May, likely and could are not measures. Accessibility benefits to this community on employment opportunities and education are really only limited to those who own a car or van. This is likely to contribute to health inequalities.
<b>13.10</b> para 361-363	<b>Biodiversity</b>	No comments.
<b>13.11</b>	<b>Built Heritage</b>	Fails to assess the setting of the scheduled Tilbury Fort or considers surrounding archaeological or palaeo-environmental deposits.
para 371	Existing situation	No assessment of archaeology.
	Scheduled monument	Fails to assess setting of monument and impact of the road on this during construction.
13.11.1	Construction	
para 374	Measures to reduce construction impacts	Definition of setting needs revising.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
13.11.2	Operations	
para 376	Measures to reduce operational impacts	Impact also from new landscaping at tunnel portal. More than just light impacts?
<b>13.12</b>	<b>Contamination</b>	
para 377	Existing situation	Last bullet point should be para. Needs to reflect that the land uses listed are those short listed as credible sources (ranked as moderate or high contamination potential). There are other potential sources (ranked low) and possible unidentified land uses.
13.12.1	Construction	
para 378-379	Construction impacts	See general comments.
para 380-383	Measures to reduce contamination management impacts of the project	See general comments.
13.12.2 para 384	Operation	See general comments.
<b>Chapter 14: Tilbury St Chads</b>		
<b>14.1</b>	<b>Overview</b>	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
14.1.1 para 393-395	About this ward	Very generic in places and duplication from the previous chapter.
14.1.2	Summary of impacts	
	Table 14.1: Summary of impacts during the project's construction and operation	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.
	Traffic	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.  See comments in response to Construction Update and Operations Update (Appendix H).
	Public transport	Multiple buses will be impacted during construction - see the Council's comments in response to Construction Update in relation to impacts on bus network and how these impacts will need to be mitigated.
	Footpaths, bridleways and cycle routes	A general point applicable to most chapters. Where footpaths, bridleways and cycle routes are closed or diverted during construction or permanently they should be appropriate publicity and clear, high quality signage.
	Health	Health inequalities are discussed but no particular mitigations are suggested to alleviate these.
	Built heritage	No assessment of below ground archaeological deposits.
	Contamination	Should be amended to state that there are no credible sources identified within the ward.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>What about low risk sources and potential for unforeseen and are there credible sources on adjacent wards that could impact this ward.</p> <p>As the upfront text states contamination is being considered on a project wide basis a consistent approach and presentation of the generic issues would be appropriate.</p>
<b>14.2</b>	<b>Project description</b>	
14.2.1	Construction	
para 396-398	Construction activities	See the Council's comments on Construction Update (Appendix H).
para 399-400	Utilities	The plan is to put the utilities in Marshfoot Road and narrow the road for 12 months while doing this, which will result in idling cars. There is a lower and upper school in this vicinity with children using the outdoor space for activities and play and the emissions from these idling cars could be damaging to their health and school attainment. There is also another school entrance at the other end of Marshfoot Road where it is planned that secondary age school children will walk/cycle along the footpaths to access the school.
para 401-403	Construction routes on public roads	<p>See the Council's comments on Construction Update and in response to paragraphs 86-88 regarding HE needing to make firm commitments as to the type and amount of material that can be transported by marine transport, including via PoT and PoT2.</p> <p>Whilst the utilities are being planned to close Marshfoot Road for a time there is also a plan for HGV's to use the road as the western route to access A1089. The cumulative effect of these operations must be assessed by HE and reported as evidence through the DCO submission.</p>
para 405	Construction working hours	Sunday has longer working hours than Saturday. What are the night time hours?

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 406-407	Traffic management	<p>See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 "<i>Traffic Management</i>".</p> <p>A 12-month lane closure affecting access to Chadwell will cause disruption in access at both access routes into and out of Tilbury. How is HE to mitigate this impact?</p>
14.2.2	Operations	
para 408	The completed project	See the Council's comments in response to section 1.4.2 (paragraphs 21-25) of this Ward Impact Summaries on the operation effects of the Project on local roads.
para 410-411	Impacts on open space and common land	There is talk of new open space but this is indicated as being outside of Tilbury and does not indicate if this is within walking or cycling distance and if it is connected to Tilbury by a PRoW?
<b>14.3</b> para 412	<b>Traffic</b>	
14.3.1	Construction	
14.3.1 para 413-414	Construction impacts	<p>See the Council's comments on Construction Update (Appendix H) and in response to section 1.4.1 para 17-20 regarding the Council's concerns about certain assumptions for the base case model and particularly concerns relating to the validation of the model on the local road network and with no testing of the local road peak hour.</p> <p>The construction modelling provided to date raises the following concerns (Reference: Thurrock Cordon Model Construction Modelling Review, May 2021) regarding the high volumes of construction traffic (either construction vehicles or staff vehicles) in Tilbury St Chads at:</p> <ul style="list-style-type: none"> <li>▪ A1089</li> <li>▪ Asda Roundabout (A1089)</li> </ul>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>Detailed assessment should be carried out where there is significant impact (e.g. junction capacity assessments, shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.).</p> <p>As discussed above there is a new school entrance planned for Marshfoot Road.</p>
para 415-416	Measures to reduce construction traffic impacts	<p>See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H).</p> <p>New bridge/viaduct structures – there are general statements and construction methodologies describing bridge and structures being 'built offline' or 'temporarily realigned'. Given the scale of works required there is little specific information given in relation to these works within the consultation material. Further site specific drawings and information are required by the council and other stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community.</p>
14.3.2	Operations	
para 417-420	Operational impacts	<p>Refer to the Council's response to section 1.4.2 of the Ward Impacts Summaries (paragraphs 21-25) which expresses the headlines of its concerns raised about the operation of the Project.</p> <p>The largest increase in flow identified is to be on Marshfoot Road as well as Fort Road and Dock Road as a result of the opening of the LTC, there is noted to be significant safety issues at the junction of Marshfoot Road and the on and off slips of the A1089 as such any increase in flow here could result in further increases in accidents. Additionally, the impact on ASDA roundabout is not identified. Concerns regarding the validation of the model on the local roads remain as previously identified.</p>
para 421	Changes to journey times	Refer to the Council's response to paragraph 121.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 422-424	Operational traffic flow	No mitigation has been proposed within this ward, as outlined within Thurrock's previous comments and various documentation. Specifically, the Council wishes to understand what mitigation proposals HE proposes at ASDA roundabout.
<b>14.4</b>	<b>Public transport</b>	
14.4.1	Construction	
para 427-428	Rail	HE must confirm whether the rail freight movements to and from DP World have been taken into account in its assessment of impacts? HE has not predicted that workers will travel via Tilbury Town station, however, that station is the closest to Compounds 5 and 5a and therefore an assessment should be made of the impacts on the station of the increased movement through the station and the possible need to introduce further cycle storage at the station. See the Council's comments on the FCTP.
para 429	Buses	See the Council's comments in response to Construction Update (Appendix H) in relation to impacts on bus network and how these impacts will need to be mitigated.
<b>14.5</b>	<b>Footpaths, bridleways and cycle routes</b>	Agreed no routes.
<b>14.6</b>	<b>Visual</b>	
14.6.1	Construction	
para 439-440	Measures to reduce visual impacts of construction	The landscaping needs to be completed early as it will be six year of construction that will be a blight on the area and affect pride of place as well as house values and mental health.  This states that no mitigation measures are deemed necessary other than what is in the CoCP and REAC.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
<b>14.7</b>	<b>Noise and vibration</b>	
14.7.1	Construction	Piling overnight will add considerable to the noise levels.
para 452-462	Daytime construction noise impacts	MAY contribute to noise (ambiguous). Does this take into account the noise of piling? Slight increase in noise, what does that mean in reality? Increase in noise levels for a period of 27 months, this could have a detrimental effect on people's mental health.
para 463-465	24/7 construction working	Does this include night time deliveries along Dry Street and Station road?  No mitigation measures mentioned.
para 466	Construction traffic noise impacts	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures.
para 467-469	Measures to reduce construction noise and vibration	Reference to REAC to provide noise-reduction measures. No monitoring mentioned. Mitigation mentions: <i>keeping construction vehicle traffic to a minimum by using local suppliers, where possible, local workforces and reducing the transport of material for earthworks construction</i>  Can this be committed to? What would the resultant noise impacts be reduced to?
<b>14.8</b>	<b>Air quality</b>	
para 475	Existing situation	Currently there is an existing concern in Tilbury about a brown/red dust that is frequently seen. There are existing concerns for air quality and noise and the cumulative impacts of the new project in conjunction with the existing



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		environment and new projects/developments being introduced in the area needs consideration. How is the dust from the spoil from the excavation of the tunnel being mitigated?
14.8.1	Construction	
para 476-478	Construction impacts	It is recognised that this areas has significant existing health issues which, although there may not be exceedances of noise, light pollution and poor air quality indicators, will have more adverse effects on the already poor health area due to the accumulation of these factors. For many of these residents the positive health indicators of employment and skills updating will not be applicable to improving their lives.  Cumulative impacts not addressed.
para 479	Measures to reduce air quality impacts of construction	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material or been used to inform air quality impacts.
14.8.2	Operations	
para 480-483	Operational impacts	We would expect there to be ongoing monitoring of any potential future impacts.  Traffic impacts on figure 13.5 show a +40% increase in traffic flows along Fort Road in the morning peak. What are the air quality impacts of this additional traffic?
para 484	Measures to reduce air quality impacts during operation	More consideration needs to be given to this and the effect on health.
<b>14.9</b>	<b>Health</b>	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
14.9.1	Construction	Two way conversations noted but no mention of how these conversations could result in changes due to feedback.
para 489-492	Construction impacts	These are all elements that affect health and wellbeing, noise and poor air quality such as through idling cars near schools  Cumulative impacts not addressed.
para 493-494	Measures to reduce impacts on health during operation	No discernible measures really noted except for potential to increase employment. May, likely and could are not measures.  Further measures need to be secured to ensure this community's health outcomes are made worse by the scheme's construction which is expected to last 6-8 years.
14.9.2	Operations	
para 495-497	Operational impacts	Cumulative impacts not addressed.
para 498	Measures to reduce health impacts of the operational project	Light/noise pollution/ decreased air quality, separation from other parts of the town are all known to have an impact on both physical and mental health and mitigations against these impacts have not been fully explored in the ward profile, especially when aligned to cumulative effects from other developments which will effect this ward significantly re the 1089.  Accessibility benefits to this community on employment opportunities and education are really only limited to those who own a car or van. This is likely to contribute to health inequalities.
<b>14.11</b>	<b>Built Heritage</b>	No assessment of below ground archaeological deposits. Extensive survival of World War II anti glider ditches.
<b>14.12</b>	<b>Contamination</b>	
14.12.1	Construction	Add unforeseen ground conditions.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 511		See general comments
14.12.2 para 512	Operations	See general comments.
<b>Chapter 15: Chadwell St Mary ward</b>		
<b>15.1</b>	<b>Overview</b>	
15.1.1 para 515	About this ward	As mentioned in general comments section – the health profile should be included here as part of the context setting section of the chapter.
15.1.2	Summary of impacts	
	Table 15.1: Summary of impacts during the project's construction and operation	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.
	Traffic	<p>Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.</p> <p>See comments in response to Construction Update and Operations Update (Appendix H).</p> <p>The Council's primary concern in relation to this ward, during construction, is the potential for construction traffic to route through Chadwell St Mary to the compounds to the south east. HE has stated that a vehicle routeing and tracking process will be adopted and this must be fully enforced with sanctions applied for non-compliance.</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		The Council's primary concern in relation to this ward, during the operational phase, is that traffic travelling towards or from the PoT/PoT2 and other developments around Tilbury will be attracted to route through Chadwell St Mary due to the poor configuration of the A13 / LTC interchange. HE's models are not reflecting this due to theoretical restraints imposed on HGV routeing which are not anticipated to be borne out in practice due to challenges in enforcement of the signed HGV restrictions. HE has no proposals to mitigate this impact, but this should be rectified.
	Public transport	See the Council's comments in response to Construction Update (Appendix H) in relation to impacts on bus network and how these impacts will need to be mitigated.
	Footpaths, bridleways and cycle routes	<p>A general point applicable to most chapters. Where footpaths, bridleways and cycle routes are closed or diverted during construction or permanently they should be appropriate publicity and clear, high quality signage.</p> <p>This point is applicable to most of the ward summaries. Consideration needs to be paid to the knock-on effects of diverted, temporarily or permanently closed footpaths, bridleways and cycle routes during construction and operation across wards in terms of promoting opportunities for WCH for physical activity, commuting and leisure. These routes do not sit in silo or end at the ward boundaries and representing an important means of travelling, promoting connectivity and reducing severance which is important for resident's health and wellbeing, particularly for vulnerable groups such as older people, those with no access to a car or other vehicle.</p>
	Visual	Light pollution impacts on residents is omitted in relation to human and population health. Light pollution can cause sleep disturbance and deprivation which in turn can have negative impacts on residents' mental health and wellbeing.
	Noise and vibration	Consideration about the impacts of night time noise arising from construction taking place over a 24 hour period is required, particularly in relation to the potential impact of local residents e.g. sleep deprivation and disturbance. The ward summary only appears to suggest monitoring of daytime noise will be undertaken. A rationale for not undertaking night time monitoring is requested.
	Air quality	(Operational phase) – as per the updated REAC and CoCP PM2.5 should be included in monitoring activities.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	Health	This ward has a significantly higher number of older people who will not benefit from employment opportunities but will be negatively impacted on restriction in access and increases in noise which needs to be considered and fully mitigated against. Health inequalities are mentioned but there is no clear information about what mitigation will be employed to reduce these inequalities.
	Built heritage	Scheduled monument of Orsett Causewayed enclosure whose setting will be impacted is not identified. This monument is identified on the built heritage map. No assessment of below ground archaeological deposits.
	Contamination	See general comments. A consistent presentation of all aspects is required. Are there identified historical sources in the ward, and could these be disturbed?
<b>15.2</b>	<b>Project description</b>	
15.2.1	Construction	
para 516-520	Construction activities	See the Council's comments on Construction Update (Appendix H).
para 521-524	Construction compounds	See the Council's comments on Construction Update (Appendix H).
para 525-527	Utilities	See the Council's comments on Construction Update (Appendix H).
para 528	Construction routes on public roads	See the Council's comments on Construction Update and in response to paragraphs 86-88 regarding HE needing to make firm commitments as to the type and amount of material that can be transported by marine transport, including via PoT and PoT2.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 533-534	Traffic management	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 " <i>Traffic Management</i> ".
15.2.2	Operations	
para 538	The completed project	See the Council's comments in response to section 1.4.2 (paragraphs 21-25) of this Ward Impact Summaries on the operation effects of the Project on local roads.
<b>15.3</b> para 542	<b>Traffic</b>	<p>Table 12.3 Main Traffic Management Measures in Chadwell St Mary, page 235 – more detail required about the mitigation measures that will be employed to reduce the impact on local residents of traffic management measures, particularly where these measures overlap across several roads within this ward. Recognition should be paid to the existing traffic constraints within this ward and how this may be further impacted by road diversions, closures and movement measures in terms of supporting residents to access amenities, health and other services. This is particularly important given the high number of older people and those living in poverty who may not have access to a car.</p> <p>Just a note there appears to be a typo in relation to Rectory Road in terms of 2 weeks early on in the programme which is linked to paragraph 534 p236.</p>
15.3.1 para 543	Construction traffic impacts	<p>See the Council's comments on Construction Update and in response to section 1.4.1 para 17-20 regarding the Council's concerns about certain assumptions for the base case model and particularly concerns relating to the validation of the model on the local road network and with no testing of the local road peak hour.</p> <p>The construction modelling provided to date raises the following concerns (Reference: Thurrock Cordon Model Construction Modelling Review, May 2021) regarding the high volumes of construction traffic (either construction vehicles or staff vehicles) in Chadwell St Mary at:</p> <ul style="list-style-type: none"> <li>▪ A1089</li> </ul>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		Detailed assessment should be carried out where there is significant impact (e.g. junction capacity assessments, shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.).
para 544	Measures to reduce construction traffic impacts	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H).  New bridge/viaduct structures – there are general statements and construction methodologies describing bridge and structures being 'built offline' or 'temporarily realigned'. Given the scale of works required there is little specific information given in relation to these works within the consultation material. Further site specific drawings and information are required by the council and other stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community.
15.3.2	Operations	
para 545-552	Traffic impacts	Refer to the Council's response to section 1.4.2 of the Ward Impacts Summaries (paragraphs 21-25) which expresses the headlines of its concerns raised about the operation of the Project.  Significant percentage increases are identified south from Orsett Cock roundabout are noted in all peak periods along both the A1013 and Brentwood Road through Chadwell St Mary, this is of key concern regarding safety and local highway network operation within Thurrock.
para 553	Changes to journey times	Refer to the Council's response to paragraph 121.
para 554-556	Operational traffic flows	Refer to the Council's response to paragraphs 122-124.
<b>15.4</b>	<b>Public transport</b>	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
15.4.1	Construction	
para 561	Buses	See the Council's comments in response to Construction Update (Appendix H) in relation to impacts on bus network and how these impacts will need to be mitigated.
<b>15.5</b>	<b>Footpaths, bridleways and cycle routes</b>	
para 564	Existing situation	
15.5.1 para 565-566	Construction	The main impact will be the closure for 5 years of FP79 which connects Chadwell to Orsett. A temporary diversion is being sought but no details are provided. Other closures are for shorter periods of time.
15.5.2 para 567	Operations	These have been discussed separately. Still waiting for details on specifications etc.
<b>15.6</b>	<b>Visual</b>	
para 568-571	Existing situation	There would be direct views from Wickham Fields open space as well as residential areas.
15.6.1	Construction	
para 572-575	Construction impacts	It is recognised that residents on the northern edge will have close to mid-range views.
para 576-577	Measures to reduce visual impacts of construction	The only additional mitigation beyond CoCP is a proposed bund around the Brentwood Road compound to reduce views.



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
15.6.2	Operations	
para 578-581	Operational impacts	The false cuttings are expected to reduce but not prevent views of vehicles using the route.
<b>15.7</b> para 583	<b>Noise and vibration</b>	<p>Figure 15.19 noise impacts during operation in Chadwell St Mary ward, p271 – Further detail required about the noise impacts (major increases of 5db+ across Orsett Heath- Mitigation is required as Orsett Heath is viewed by resident as a place for tranquillity and time spent in nature.</p> <p>There are also concerns about the impacts of increases in noise in close proximity to Whitecroft Care Home which sits within the Orsett ward and just outside of the ward Chadwell St Mary ward boundary in terms of the potential negative impacts on vulnerable residents residing in this home. Even small changes to noise can have a significant detrimental impact on vulnerable residents such as older people.</p>
15.7.1	Construction	
para 601-602	24/7 construction working	Construction impacts likely due to night/weekend working. No commitment at this stage to the specific measures.
para 603	Construction traffic noise impacts	Construction Traffic Modelling - No updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures.
para 604-606	Construction mitigation	<p>Reference to REAC to provide noise-reduction measures. No monitoring mentioned.</p> <p>Mitigation mentions:</p> <p><i>'keeping construction vehicle traffic to a minimum by using local suppliers, where possible, local workforces and reducing the transport of material for earthworks construction'</i></p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		Can this be committed to? What would the resultant noise impacts be reduced to?
<b>15.8</b> para 612	<b>Air quality</b>	
15.8.1	Construction	
para 614-616	Construction impacts	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material or been used to inform air quality impacts.
para 617	Measures to reduce air quality impacts of construction	What would the Air Quality Management Plan look like? How would it be implemented and take account of the health needs of resident linking in with the health profile of Chadwell St Mary?  Generic measures are being proposed but which one, and how would they be embedded in specific locations within Chadwell St Mary to reduce the impacts for residents including those who are vulnerable?
15.8.2	Operations	
para 622	Measures to reduce air quality impacts during operation	States that there will be no additional mitigation. This is despite the fact that even small increases in air pollution (non-threshold pollutants) can negatively impact on vulnerable groups as per the Chadwell St Mary health profile.
<b>15.9</b>	<b>Health</b>	
para 623-626	Existing situation	A range of important data is missing from the health profile including: child poverty figures, the percentage of people living with a limiting long term illness or disability, older people living in deprivation, emergency hospital admission for Chronic Obstructive Pulmonary Disease (COPD) – all of which are significantly higher in Chadwell St Mary compared to Thurrock and England.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>There is updated data available for some of these points on local health which are worth including. These can be found on Public Health England's Local Health website.</p> <p>This information as noted above should be included in the context setting section of the chapter and should also link back and thread through all of the environmental sections and in terms of mitigation.</p>
15.9.1	Construction	
para 631-632	Measures to reduce impacts on health during construction	<p>See our response to the CoCP and REAC in relation to the communication engagement plan. Additionally, the measures outlined in paragraph 632 of this ward summary doesn't appear to provide two-way communication as it appears to be more about keeping residents up-to-date. Further information about how two-way communication measures will be implemented with local communities is needed.</p> <p>Further mitigation required than what is proposed in the CoCP/REAC.</p>
15.9.2	Operations	As noted in the general comments above the content relating to operational impacts appear to be generic and has been applied across a number of ward summaries but does not give a clear picture about the effects specific to the ward or the people living and working there.
para 633-635	Operational impacts	<p>How has the improvements in accessibility of more than 10% been modelled and calculated?</p> <p>Tilbury Fields is mentioned as a new open space for residents; however, it is located some way away from Chadwell St Mary and therefore does not promote walkable communities and active travel. More could be done to improve accessibility to local open spaces, e.g. Orsett Heath through the proposed upgrades to existing footpaths outlined by Highways England.</p>
para 636	Measures to reduce health impacts of the operational project	Further mitigation/compensation required for the negative health impacts on the community here.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
<b>15.11</b>	<b>Built heritage</b>	No inclusion of archaeological deposits.
para 647	Existing situation	Extensive cropmark complexes potentially associated with adjacent scheduled sites. Large areas now evaluated so impact should be understood.
15.11.1	Construction	
para 651	Measures to reduce built heritage impacts of construction	No mention made of building records of structures to be demolished.  As comment above, building recording needs to be mentioned here.
<b>15.12</b>	<b>Contamination</b>	
15.12.1	Construction	
para 657	Construction impacts	See general comments.
para 658-661	Measures to reduce contamination during construction	See general comments.
15.12.2	Operations	
para 662	Measures to reduce contamination during operation	See general comments.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
<b>Chapter 16: Orsett ward</b>		
<b>16.1</b> para 663-664	<b>Overview</b>	
16.1.1 Para 665	About this ward	<p>The existing narrative is mainly geographical. This section would benefit from a much broader overview, including demographic, health, and life expectancy data specific to the Orsett ward. This local profile is relevant to each topic area and cannot be given sufficient consideration if included later in the document under one topic area.</p> <p>At present, the overview fails to provide the level of detail necessary to understand local impact at a ward level.</p>
16.1.2	Summary of impacts	
	Table 16.1: Summary of impacts during the project's construction and operation	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.
	Traffic	<p>Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.</p> <p>See comments in response to Construction Update and Operations Update (Appendix H).</p> <p>The Council's primary concern relating to Orsett ward is the potential diversion of traffic from A128 through Orsett during period of delay and disruption at the Orsett Cock interchange. HE must provide details of mitigation that will address this problem.</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	Public transport	See the Council's comments in response to Construction Update (Appendix H) in relation to impacts on bus network and how these impacts will need to be mitigated.
	Footpaths, bridleways and cycle routes	<p>A general point applicable to most chapters. Where footpaths, bridleways and cycle routes are closed or diverted during construction or permanently they should be appropriate publicity and clear, high quality signage.</p> <p><b>Footpaths, bridleways and cycle ways</b> - Identifies temporary closures stating 'these closures will be as short as possible' could the estimated duration be included here so that impacts can be fully assessed.</p> <p>Footpath FP79 – HE states we are working on a temporary diversion for this route.</p> <p>Footpaths 82, 93, 94, 95, 96, 97, 104, 136, and BR 161, 2056, and 219 all face closures of between 8 months and 5 years with no mentions of diversions, could it be made clear what alternatives are offered and how the closures coincide with the timings of any of the new/upgraded routes.</p> <p>Additional note on cycling (this maybe more appropriate for the 'general comments' transport section.</p> <p>Transport section, The potential benefits of active travel has been overlooked. The scheme provides enormous opportunity to enhance cycling as a means of travel and fails to maximise the benefits that could be achieved by simply replacing many of the car journeys with cycling.</p> <p>Greater emphasis on improved cycling routes would improve many outcomes and serve as a mutual benefit for everyone:</p> <ul style="list-style-type: none"> <li>▪ For the local council cycling activity supports many health and wellbeing objectives by encouraging more healthy behaviours and improving the attractiveness of the borough.</li> <li>▪ For local communities new cycling routes (for both enjoyment and practical purposes) would provide a popular compensatory measure by improving local environments, offer a genuine alternative to car travel and enhance local connectivity.</li> <li>▪ For Highways England cycling routes will provide a cheap and effective form of mitigation against a range of adverse impacts (many of which are unresolved) such as reducing air and noise pollution, relieving congestion on the routes where this is set to worsen, encouraging less car use, and ultimately reducing the need for even more roads.</li> </ul>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>Whilst we acknowledge there are proposals for 2 new cycling routes between Blackshots and Orsett and Grays and Stanford, we believe active travel offers much greater potential in terms of both scheme mitigation and local benefit.</p> <p>Enhancement of cycling routes and diversions has the potential to resolve many of the current highway issues, particularly in those areas where traffic flows are predicted to increase. In this regard we would request that further assessment work is conducted between HE and representatives from our transport and public health team.</p>
	Visual	<p><b>Visual Impact</b> - Gas Valve compound – identifies permanent addition to views but includes no details of the size and scale of the new compound in order that the significance can be assessed.</p>
	Health	<p>Identifies changes in accessibility of local resources and delays to local journeys but does not assess the impact against the local population profile. Significance of impact would be higher in this area due to the number of elderly residents.</p> <p>Figure 16.2 identifies average daily vehicles travelling to construction compounds. In some locations these are exceeding 200 vehicles, i.e. 400 trips per day.</p> <p>This level of traffic flow would justify additional mitigation measures (such as the use of mini-buses), especially during peak times.</p> <p>Utility works – works relating to replacement/relocation of electricity pylons, earlier documents stated these would be taken underground, but was there any justification provided as to why they have reverted back to overground cabling?</p>
	Built heritage	<p>No assessment of non-designated archaeology, especially the extensive cropmarks located outside the scheduled monument which will also be destroyed.</p> <p>Operations impacts - greater impact on Baker Street Windmill than other listed buildings. It is understood that there will be a record of its setting made prior to construction. Are there other mitigation measures other than lighting?</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	Contamination	See general comments.
<b>16.2</b>	<b>Project description</b>	
16.2.1	Construction	
para 666-679	Construction activities	See the Council's comments on Construction Update (Appendix H).
para 680-684	Construction compounds	See the Council's comments on Construction Update (Appendix H).
para 685-687	Utilities	See the Council's comments on Construction Update (Appendix H).
para 692-693	Traffic management	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comments on paragraphs 96-97 ' <i>Traffic Management</i> '.
para 694-696	A13	The construction of the currently proposed A13/LTC/Orsett Cock interchange and associated link roads and structures will be extremely complex and require substantial changes in traffic management and temporary route adjustments. A comprehensive and detailed study must be provided by HE and its contractors to indicate how the construction of that interchange will be managed to minimise disruption and maximise network safety. The proposed high level strategic modelling of the construction period is insufficient to assess the likely effects.
para 697-700	A1013	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
para 701-704	Baker Street	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 705-709	Brentwood Road	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
para 710-714	Stifford Clays Road	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
para 715	High Road	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
para 716-717	Hornsby Lane	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
para 718-721	Rectory Road	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
para 722	Fen Lane	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
para 723-726	Green Lane	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
para 727	Mill Lane	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
para 728-729	Orsett Cock Junction	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> ' and the Council's response to paragraph 694-696. The Council has raised concerns regarding the absence within the final layout of the Orsett Cock interchange with no interchange between A128 and A1089 and the effect this will have on alternative access routes to Tilbury, including Stanford Road.
para 730-732	HGV bans during construction	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
16.2.2	Operations	
para 733	The completed project	See the Council's comments in response to section 1.4.2 (paragraphs 21-25) of this Ward Impact Summaries on the operation effects of the Project on local roads.
para 734	Changes to the project since our design refinement consultation	The Council is aware of the proposal to add further lanes to the linkages between LTC and A13 to the Orsett Cock interchange. Details of these changes have not been shared with the Council and it reserves comment but observes that it already has significant concerns over the interface between these routes, which have been expressed to HE but are unresolved. HE must refer to the SoCG Issues Log and the REAC. The Council will respond on the updated proposals when details are provided by HE.
<b>16.3</b> para 740	<b>Traffic</b>	
16.3.1	Construction	
16.3.1 para 741-744	Construction impacts	<p>Significant traffic impacts are expected in this ward during construction. See the Council's comments on Construction Update (Appendix H) and in response to section 1.4.1 para 17-20 regarding the Council's concerns about certain assumptions for the base case model and particularly concerns relating to the validation of the model on the local road network and with no testing of the local road peak hour.</p> <p>The construction modelling provided to date raises the following concerns (Reference: Thurrock Cordon Model Construction Modelling Review, May 2021) regarding the high volumes of construction traffic (either construction vehicles or staff vehicles) in Orsett Ward at:</p> <ul style="list-style-type: none"> <li>▪ Rectory Road, Orsett Village</li> <li>▪ Stifford Clays Road, Orsett Village</li> <li>▪ B188, Baker Street village</li> <li>▪ A1014 North Bound</li> <li>▪ A128 Brentwood Road</li> </ul>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1	The Council's Comments
	<ul style="list-style-type: none"> <li>▪ Buckingham Hill Road North Bound</li> <li>▪ A13 West Bound at Stanford Le-Hope Bypass-</li> <li>▪ Orsett Cock Roundabout</li> <li>▪ Manorway Roundabout</li> </ul> <p>Detailed assessment should be carried out where there is significant impact (e.g. junction capacity assessments, shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.).</p> <p>The impact of construction traffic to residents within this ward is of particular concern. The construction impacts from the proposed realignment work of A1013, and the temporary closure of Rectory Road and Baker Street has highlighted increased journey times, delays and congestion along these main access routes to the village.</p> <p>The Ward Summary profile refers to Chapter 2 of the Construction Update (Appendix H), where measures for traffic management identify generic impacts and has not specifically considered local impact.</p> <p>Areas of particular concern:</p> <ul style="list-style-type: none"> <li>▪ Measures have insufficiently considered access for educational settings such as Orsett Primary School and William Edwards Secondary school which would be severely disrupted.</li> <li>▪ Emergency services routes and routes connecting communities to other medical facilities such as Basildon Hospital would be severely disrupted.</li> <li>▪ Poor journey reliability leading to lack of confidence in making journeys independently or through the use of public transport, potentially increasing isolation and disconnecting communities.</li> <li>▪ The summary identifies bus services would be severely disrupted describing 'minor' increases in journey times on several bus routes – although we could not find a definition of the term 'minor'? Further information is requested in relation to estimated delay times.</li> <li>▪ The impact to business activity within the village i.e. shops, pubs and restaurants has not been considered.</li> </ul>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<ul style="list-style-type: none"> <li>The ward of Orsett has a higher proportion of elderly residents reliant on public transport for access to everyday amenities.</li> </ul> <p>A detailed local traffic management plan including any proposed mitigation measures (and the likely effectiveness of these measures) would help ensure these factors are fully considered and overcome.</p> <p>Community Liaison arrangements would need inclusion, including details of how HE/Contractors will engage with the people affected. i.e. how residents will be appropriately informed of the dates and duration of closures of roads and PRow and details of diversion routes and how the public can raise any transport concerns or issues with the contractors.</p> <p>The impacts of construction traffic, road closures and delays are understandably of particular concern given the number of elderly residents within this location.</p>
para 745-747	Measures to reduce construction traffic impacts	<p>See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H).</p> <p>New bridge/viaduct structures – there are general statements and construction methodologies describing bridge and structures being 'built offline' or 'temporarily realigned'. Given the scale of works required there is little specific information given in relation to these works within the consultation material. Further site specific drawings and information are required by the council and other stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community.</p>
16.4.2	Operations	
para 748-766	Operational impacts	Refer to the Council's response to section 1.4.2 of the Ward Impacts Summaries (paragraphs 21-25) which expresses the headlines of its concerns raised about the operation of the Project.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		Significant changes in traffic flow are expected within this ward, most noticeable is the impact at Orsett Cock. Further to note is the design change of the LTC off-slip heading east on the A13 and towards Orsett Cock junction, no further indication of impact of the junction is known at this time. The microsimulation modelling of Orsett Cock junction has not been made available. The Junction Assessment and Mitigation Analysis report issued in October 2020 indicated that mitigation is required. Significant increases are also identified south of Orsett Cock roundabout in all peak periods along both the A1013 and Brentwood Road through Chadwell St Mary, this is of key concern regarding safety and local highway network operation within Thurrock. HE must resolve these impacts.
para 767	Changes to journey times	Refer to the Council's response to paragraph 121.
para 768-770	Operational traffic flows	Refer to the Council's response to paragraphs 122-124.
<b>16.4</b>	<b>Public transport</b>	
16.4.1	Construction	
para 775-777	Buses	There will be significant impacts on buses during construction - See the Council's comments in response to Construction Update in relation to impacts on bus network and how these impacts will need to be mitigated.
<b>16.5</b>	<b>Footpaths, bridleways and cycle routes</b>	
para 780	Existing situation	
16.5.1 para 781	Construction	It is recognised that there would be major impacts to rights of way in the ward with several key routes closed for 5 years. Some routes may be diverted but no details are provided. The routes in this ward form key parts of the borough's network and their long-term closure would have significant impacts on users, particularly horse-riders who have few alternatives. Details of possible diversions should be provided urgently.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		See comments on signage above.
16.5.2 para 782	Operations	The mitigation measures have been discussed elsewhere.
<b>16.6</b>	<b>Visual</b>	
para 791-794	Construction impacts	Recognises the impacts on residents in around Baker Street and PRow users in particular.
para 795-796	Measures to reduce visual impacts of construction	Additional mitigation limited to locating compound facilities greater than 6m within Stifford Road East compound to maximise distances to residential properties. No other measures other than standard CoCP mitigation is proposed.
16.6.2 para 797-798	Operations	
para 803	Measures to reduce visual impacts of the operational project	False cutting and planting are the main mitigation measures – these will lessen impacts but not totally screen views.
<b>16.7</b> Para 804	<b>Noise and vibration</b>	
16.7.1 para 810-821	Construction	The assessment does not consider differences in the way people respond to sound, i.e. continuous background noise from traffic is not perceived in the same way as intermittent construction such as the vibratory or percussive piling that

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>is predicted to occur. The human ear responds to different pitches or frequencies of sound differently (and therefore generates varying physiological and psychological responses).</p> <p>Noise levels from construction can change from one hour to the next and therefore assessment of impact should be made from maximum noise levels rather than averaged over a 12 hour period. The current approach does not consider potential intermittent exceedances. Lmax noise levels are not assessed with regards to construction noise impacts. This is not in line with guidance.</p> <p>This is important as the current 'averaged' method is only marginally below BS5228 permitted limits at some assessment locations leaving intermittent exceedances highly probable.</p>
para 822-824	24/7 construction working	Construction impacts likely due to night/weekend working. No commitment at this stage to the specific measures.
para 825	Construction traffic noise impacts	<p>Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures.</p> <p>Hornsby Lane – Moderate to Major increases in noise impact identified within close proximity to The Whitecroft (56 bedroom care home).</p> <p>The assessment provides a generic response stating ...'Construction noise levels would be controlled by mitigation measures set out in REAC and CoCP'.</p> <p>Could the assessment provide further detail in terms of these increases i.e. the actual increase in noise against current levels together with the anticipated impact control measures will have in reducing this.</p> <p>This will help to understand any noise impact specific to the care home itself.</p> <p>Reference to REAC to provide noise-reduction measures. No monitoring mentioned.</p> <p>Mitigation mentions:</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p><i>keeping construction vehicle traffic to a minimum by using local suppliers, where possible, local workforces and reducing the transport of material for earthworks construction</i></p> <p>Can this be committed to? What would the resultant noise impacts be reduced to? Particularly relevant to Hornsby Lane impacts.</p>
<b>16.8</b> para 834	<b>Air Quality</b>	
16.8.1	Construction	
para 836-838	Construction impacts	<p>Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material or been used to inform air quality impacts.</p> <p>Identifies properties that are within 'worksite' areas and therefore likely to be affected by construction dust or emissions but states this as temporary. Could the summary state expected exceedance and duration of impact for properties affected?</p> <p>Identifies temporary minor worsening of air quality in the area around A1089 and A13 corridors as a result of traffic management for 2 years. Could the summary provide estimated exceedances together with mitigation measures proposed and the expected effectiveness of these measures, i.e. a before and after scenario.</p> <p>The assessment would need to consider local demographic data here to identify vulnerabilities, i.e. the population in this area is significantly older and therefore more susceptible to these impacts.</p> <p>Impacts of light pollution (construction and operational) has not been considered and would need inclusion.</p>
<b>16.9</b>	<b>Health</b>	
16.9.1	Construction	



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 849-852	Construction impacts	Cumulative impacts, particularly surrounding the junction, are not addressed.
para 853-854	Measures to reduce impacts on health during construction	Further mitigation measures over and above the CoCP required for residential areas surrounding the junction and for those with reduced accessibility.
16.9.2	Operations	
para 855-857	Operational impacts	Cumulative impacts, particularly surrounding the junction, are not addressed.
para 858	Measures to reduce health impacts of the operational project	Further mitigation and compensatory measures required for noise, AQ and visual impacts (cumulative).
<b>16.11</b>	<b>Built heritage</b>	
	Existing situation	No assessment of non-designated archaeology, especially the extensive cropmarks located outside the scheduled monument which will also be destroyed. No recognition of Horndon on the Hill being one of the earliest historic settlements in the area.
para 872	Listed buildings	Worth mentioning Baker Street Windmill (Grade II listed) as this will experience one of the greatest impacts from change within its setting both during construction and operation.
para 873	Scheduled monuments	Fails to identify the extensive cropmarks surrounding the scheduled monument.
16.11.1	Construction	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 876-877	Listed buildings	'Deconstructed and removed' - does this indicate that there is still consideration being given to the rebuilding of the cottages elsewhere as part of the mitigation measures?
para 878-879	Scheduled monuments	The destruction of the scheduled monument should be identified as the loss of one of the highest levels of protected monuments equal to a Grade 1 designated building.
16.11.2	Operations	
para 885	Measures to reduce built heritage impacts of the operational project	Include record of Baker Street Windmill's setting as a mitigation measure. Seems to be an emphasis on lighting again.
<b>16.12</b>	<b>Contamination</b>	
16.12.1	Construction	
para 888-890	Construction impacts	See general comments.
para 891-895	Measures to reduce contamination management impacts of construction	See general comments.
16.12.2	Operations	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 896-897	Measures to reduce contamination management impacts of the operational project	See general comments.  Verification reporting of remedial works (both historical and generated during construction) should be under Construction.
<b>Chapter 17: Little Thurrock Blackshots and Little Thurrock Rectory wards</b>		
<b>17.1</b>	<b>Overview</b>	
17.1.1 para 901-902	About these wards	The existing narrative is mainly geographical. This section would benefit from a much broader overview, including demographic, health, and life expectancy data specific to the Orsett ward. This local profile is relevant to each topic area and cannot be given sufficient consideration if included later in the document under one topic area. At present, the overview fails to provide the level of detail necessary to understand local impact at a ward level.
17.1.2	Summary of impacts	
	Table 17.1: Summary of impacts during the project's construction and operation	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.
	Traffic	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.  See comments in response to Construction Update and Operations Update (Appendix H).

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		The primary concern in this ward is the effect of the Project during operation on the A1013 corridor at Daneholes roundabout. HE has acknowledged this likely impact but has yet to agree a method of mitigation or to reliably assess the impact on that junction and corridor.
	Public transport	See the Council's comments in response to Construction Update (Appendix H) in relation to impacts on bus network and how these impacts will need to be mitigated.
	Footpaths, bridleways and cycle routes	A general point applicable to most chapters. Where footpaths, bridleways and cycle routes are closed or diverted during construction or permanently they should be appropriate publicity and clear, high quality signage.
	Built heritage	The presence of the scheduled monument described in section 17.11 not identified. No assessment of below ground archaeological deposits. One Grade II* listed building at south of Ward - Church of St Mary the Virgin (see at Figure 17.21).
	Contamination	See general comments.
<b>17.2</b>	<b>Project description</b>	
17.2.1	Construction	
para 903-904	Construction activities	See the Council's comments on Construction Update (Appendix H).
para 905-906	Construction compounds and Utility Logistics Hubs	See the Council's comments on Construction Update (Appendix H).

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 907	Construction related traffic	See the Council's comments on Construction Update (Appendix H).
para 908	Construction routes on public roads	See the Council's comments on Construction Update (Appendix H).and in response to paragraphs 86-88 regarding HE needing to make firm commitments as to the type and amount of material that can be transported by marine transport, including via PoT and PoT2.
para 911-913	Traffic management	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
17.2.2	Operations	
para 914	The completed project	See the Council's comments in response to section 1.4.2 (paragraphs 21-25) of this Ward Impact Summaries on the operation effects of the Project on local roads.
<b>17.3</b>	<b>Traffic</b>	
17.3.1	Construction	
para 920-921	Construction impacts	<p>See the Council's comments on Construction Update (Appendix H) and in response to section 1.4.1 para 17-20 regarding the Council's concerns about certain assumptions for the base case model and particularly concerns relating to the validation of the model on the local road network and with no testing of the local road peak hour.</p> <p>The construction modelling provided to date raises the following concerns (Reference: Thurrock Cordon Model Construction Modelling Review, May 2021) regarding the high volumes of construction traffic (either construction vehicles or staff vehicles) at:</p> <ul style="list-style-type: none"> <li>▪ Daneholes Roundabout (A1013)</li> </ul>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>Detailed assessment should be carried out where there is significant impact (e.g. junction capacity assessments, shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.).</p> <p>Included within the ward summary we would expect a detailed local traffic management plan including mitigation measures, traffic monitoring and estimated delay times specific to this ward. Community Liaison arrangements would need inclusion including details of how HE/Contractors will engage with the people affected. i.e. how residents will be appropriately informed of the dates and duration of closures and anticipated delays/disruption to services along with alternative measures.</p> <p>Changes in traffic flows as a result of construction traffic does not appear to have been assessed (in the same way as operational). If there is no perceivable impact then this should be stated.</p>
para 922	Measures to reduce construction traffic impacts	<p>See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H).</p> <p>New bridge/viaduct structures – there are general statements and construction methodologies describing bridge and structures being 'built offline' or 'temporarily realigned'. Given the scale of works required there is little specific information given in relation to these works within the consultation material. Further site specific drawings and information are required by the council and other stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community.</p>
17.3.2	Operations	
para 923-937	Operational traffic impacts	Refer to the Council's response to section 1.4.2 of the Ward Impacts Summaries (paragraphs 21-25) which expresses the headlines of its concerns raised about the operation of the Project.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>Significant percentage impact is identified during all three peak periods at Daneholes roundabout, please note LTC Consultation - Junction Assessment and Mitigation Analysis issued in October 2020 which provides additional analysis of the operation at this junction and possible mitigation measures.</p> <p>This identifies increase in traffic flows on some routes between:</p> <ul style="list-style-type: none"> <li>▪ The northern section of the A1089 between the Marshfoot roundabout and the A13 identifying significant increases of 40% in the northern direction during peak times.</li> <li>▪ Traffic flows into the Daneholes roundabout (southbound) would increase by 20-40%</li> <li>▪ Marshfoot interchange, traffic flows on the A126 Marshfoot Rd northbound (towards Chadwell St Mary) would increase by between 10 and 20 % and eastbound by 40%</li> <li>▪ Northbound slip of the A1089 would see an increase of 40% in traffic</li> <li>▪ Dock Road interchange at its junction with Marshfoot, Eastbound increases of 10-20%</li> <li>▪ The old Dock Road approach towards the Daneholes roundabout an increase of 40%</li> <li>▪ Increase of between 20 - 40% in Long Lane</li> </ul> <p>These increases are currently unmitigated, the potential for new cycling routes in these areas has the potential to alleviate some of the traffic within most of these areas.</p>
para 938	Changes to journey times	Refer to the Council's response to paragraph 121.
para 939	Operational traffic flows	Refer to the Council's response to paragraphs 122-124.
17.4.1	Construction	
para 944	Buses	See the Council's comments in response to Construction Update (Appendix H) in relation to impacts on bus network and how these impacts will need to be mitigated.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		Identifies delays to approximately 40% of bus services. Could HE provide further details in terms of duration and length of delays (they have provided timings for operational impacts on public transport) but not for this construction phase. This information would need to be included to understand the significance of the impact. This is of particular importance as this ward has a high level of elderly residents who are more likely to be dependent on public transport.
<b>17.5</b>	<b>Footpaths, bridleways and cycle routes</b>	
17.5.1	Construction	Identifies closure of FP97 linking Blackshots with Orsett for a period of 8 months. Could it be made what alternatives/diversions are offered during the closure or how this closure coincides with any upgrading of alternative routes?
para 948	Construction impacts	The short section of bridleway linking Long Lane and Stanford Road would be closed for 5 years. Part of FP 97 running through Ron Evans Playing Field will be lost permanently.
17.5.2	Operations	
para 951	Operational impacts	The mitigation has been considered in detail in specific assessments.
<b>17.6</b>	<b>Visual</b>	
17.6.1	Construction	
para 955-958	Construction impacts	Does not address the visual impacts on Ron Evans Playing Fields, an important informal open space for residents. Although technically not part of the ward it 'reads' as such and is used mainly by residents of these wards. This will be partly lost.



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 959-960	Measures to reduce visual impacts during construction	No specific mitigation is proposed beyond CoCP.
17.6.2 para 961	Operations	
para 962-963	Operational impacts	Reliance on false cuttings to mitigate but not fully screen elements such as the A13/A1089 junction.
<b>17.7</b>	<b>Noise and vibration</b>	
17.7.1	Construction	
para 970-979	Daytime construction noise impacts	Point 4 construction level noise is predicted to exceed current noise levels up to 10db for a period of almost 4 years. It is unclear of the noise reduction measures planned to reduce this impact further and the anticipated effectiveness of the measures.
para 980-981	24/7 construction working	Identifies 24/7 construction working and identifies potential impacts on local communities. There is no assessment of night time noise or light pollution impacts or assessment of impact on local communities.  Construction impacts likely due to night/weekend working. No commitment at this stage to the specific measures
para 982	Construction traffic noise impacts	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures.
para 983-985	Measures to reduce construction	Reference to REAC to provide noise-reduction measures. No monitoring mentioned.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	noise and vibration	<p>Mitigation mentions:</p> <p><i>'keeping construction vehicle traffic to a minimum by using local suppliers, where possible, local workforces and reducing the transport of material for earthworks construction'</i></p> <p>Can this be committed to? What would the resultant noise impacts be reduced to?</p>
<b>17.8</b>	<b>Air quality</b>	
17.8.1	Construction	
para 994-996	Construction impacts	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material or been used to inform air quality impacts.
<b>17.11</b>	<b>Built heritage</b>	
para 1040-1041	Existing situation	No assessment of below ground archaeological deposits RH Figure 17.21 shown Grade II* listed Church of St Mary the Virgin at the south of the Ward. Needs to be mentioned although it is at quite a distance from the Order Limits.
17.11.1	Construction	
para 1042-1043	Construction Impacts	Would agree there will be no impact on the scheduled Dene Holes, however, the extensive archaeological deposits known from cropmarks is likely to be destroyed.
<b>17.12</b>	<b>Contamination</b>	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1047-1048	Construction	See general comments – whilst no known credible sources still potential for low and unidentified – consistency required.
para 1049	Operation	See general comments.
<b>Chapter 18: Stifford Clays, Chafford and North Stifford, and Belhus wards</b>		
<b>18.1</b>	<b>Overview</b>	
18.1.2	Summary of impacts	
	Table 18.1: Summary of impacts during the project's construction and operation	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.
	Traffic	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.  See comments in response to Construction Update and Operations Update (Appendices A (1) and H).
	Public transport	Text on bus impacts in chapter below identifies multiple buses may be impacted during construction/TM activities.  See the Council's comments in response to Construction Update in relation to impacts on bus network and how these impacts will need to be mitigated.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	Footpaths, bridleways and cycle routes	A general point applicable to most chapters. Where footpaths, bridleways and cycle routes are closed or diverted during construction or permanently they should be appropriate publicity and clear, high quality signage.
	Built heritage	No assessment of the below ground archaeological deposits. Information identified in section 18.11 has not been included within this summary table. This is incorrect - see Section 18.11.
	Contamination	See general comments – no identified credible sources but potential for unidentified and low ranked sources – consider potential for migration from adjacent wards.
<b>18.2</b>	<b>Project description</b>	
18.2.1	Construction	
para 1057-1061	Construction activities	See the Council's comments on Construction Update (Appendix H).
para 1062-1063	Construction compounds and Utility Logistics Hubs	See the Council's comments on Construction Update (Appendix H).
para 1064	Construction related traffic	See the Council's comments on Construction Update (Appendix H).
para 1065	Construction routes on public roads	See the Council's comments on Construction Update (Appendix H). The Council has sought to maximise the legacy benefits from changes which would be made to Medebridge Road and its junction with High Road. HE has acknowledged the possibility of this approach but has yet to provide a response to the Council's proposals and He has further not recognised the need to mitigate the impacts on the junction of High

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		Road with Medebridge Road that would result form the many construction traffic movements to the access road along Medebridge Road.
para 1068-1070	Traffic management	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
18.2.2	Operations	
para 1071	The completed project	See the Council's comments in response to section 1.4.2 (paragraphs 21-25) of this Ward Impact Summaries on the operation effects of the Project on local roads.
para 1073	Impacts on open space and common land	Although there are no direct impacts on open space land for these Wards, the Ward of Stifford Clays is very close to (I.e. walkable for local residents) and therefore likely to be impacted by the changes to the Ron Evans Memorial field. This needs to be taken into account for this ward.
para 1074	Impacts on private recreational facilities	Grangewaters Outdoor Education Centre is used by the community and a number of vulnerable populations and any changes to this facilities needs careful consideration of the consequences to the community and these populations.
<b>18.3</b> para 1077	<b>Traffic</b>	
18.3.1 para 1078	Construction	See the Council's comments on Construction Update and in response to section 1.4.1 para 17-20 regarding the Council's concerns about certain assumptions for the base case model and particularly concerns relating to the validation of the model on the local road network and with no testing of the local road peak hour.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>The construction modelling provided to date raises the following concerns (Reference: Thurrock Cordon Model Construction Modelling Review, May 2021) regarding the high volumes of construction traffic (either construction vehicles or staff vehicles) in these wards at:</p> <ul style="list-style-type: none"> <li>▪ B186, South Ockendon</li> </ul> <p>Detailed assessment should be carried out where there is significant impact (e.g. junction capacity assessments, shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.).</p>
	Measures to reduce construction traffic impacts	<p>See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H).</p> <p>New bridge/viaduct structures – there are general statements and construction methodologies describing bridge and structures being 'built offline' or 'temporarily realigned'. Given the scale of works required there is little specific information given in relation to these works within the consultation material. Further site specific drawings and information are required by the council and other stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community.</p>
18.3.2	Operations	
para 1077-1088	Operational impacts	Refer to the Council's response to section 1.4.2 of the Ward Impacts Summaries (paragraphs 21-25) which expresses the headlines of its concerns raised about the operation of the Project.
para 1089	Changes to journey times	Refer to the Council's response to paragraph 121.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1090-1091	Operational traffic flows	Refer to the Council's response to paragraphs 122-124.
<b>18.4</b>	<b>Public Transport</b>	
para 1092	Rail	Rail station also available at Chafford Hundred Lakeside.
para 1093	Buses	The bus routes should be mapped with GIS with a key, describing the destinations to ensure we understand the accessibility issues for particular populations, facilities and locations.
18.4.1	Construction	As above where are these buses going from and to? By how much will journey time be impacted?
para 1094-1095	Buses	Indicates multiple buses will be impacted during construction. See the Council's comments in response to Construction Update in relation to impacts on bus network and how these impacts will need to be mitigated.
para 1096-1097	Rail	Mitigation required for increased journey times to rail stations – opportunity to enhance active travel measures to offset the impact.
<b>18.5</b>	<b>Footpaths, bridleways and cycle routes</b>	
18.5.1	Construction	
para 1101	Construction impacts	The main impact will be the 5 year closure of BW219, a strategically important route through the borough. A temporary diversion is being sought but no details have been given.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		BR161 – Will there be an alternative route/temporary diversion put in place?
18.5.2	Operations	
para 1102	Operational impacts	The proposed upgrades accord with NMU proposals. No detail of specifications has been provided yet.
<b>18.6</b>	<b>Visual</b>	
	Existing situation	Stifford Clays Road is a main route for local people and therefore the effects will be significantly wider than residents fronting it.
18.6.1	Construction	
Para 1113	Measures to reduce visual impacts during construction	No specific measures proposed.
18.6.2 para 1114-1118	Operations	
para 1119	Measures to reduce visual impacts during operation	Standard mitigation only.
<b>18.7</b>	<b>Noise and vibration</b>	



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1120		
18.7.1	Construction	The noise assessment points in Figure 18.14 should consider the William Edwards School as a receptor, as receptor locations have not yet been agreed.
para 1127-1136	Daytime construction noise impacts	Point 3 described as having noise levels which would exceed existing daytime noise levels for eight months (albeit not breaching defined thresholds). Proximity to Thurrock Community Hospital needs consideration in health impacts for vulnerable populations.  No receptors along Stifford Clay Road.
para 1137-1138	24/7 construction working	Construction impacts likely due to night/weekend working within Stifford Clays Ward. No commitment at this stage to the specific measures.
para 1139	Construction traffic noise impacts	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures.  Major increase in noise from construction traffic for 6 years on Stifford Clays Road (close to residential and William Edwards School) and on High Road (close to residential and a Church).  No figure/map provided showing construction noise impacts.
para 1140-1142	Measures to reduce construction noise and vibration	Reference to REAC to provide noise-reduction measures. No monitoring mentioned.  Mitigation mentions:

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p><i>'keeping construction vehicle traffic to a minimum by using local suppliers, where possible, local workforces and reducing the transport of material for earthworks construction'</i></p> <p>Can this be committed to? What would the resultant noise impacts be reduced to? Currently major impacts in construction noise levels.</p>
18.7.2	Operations	
	Operational traffic noise and vibration impacts	Noise impacts as a result of traffic flow changes on existing roads noted, however there is a very wide range from decreases to increases. The worst case scenario of the major increases in road traffic noise should be mitigated for as a result, although there are no residential receptors within this category in this Ward.
<b>18.8</b> para 1151	<b>Air quality</b>	Assessments are out of date and based on old versions of the project.
18.8.1	Construction	
para 1156-1158	Construction impacts	<p>Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material or been used to inform air quality impacts.</p> <p>Air quality impacts stated as temporary but unclear how long temporary is.</p> <p>3 AQMAs have been highlighted in this ward, but the consultation lacks information on what the impacts will be on these.</p>
18.8.2	Operations	
para 1160-1164	Operational impacts	Consultation materials focuses on no predicted exceedances of air quality thresholds for NO2. It is unclear from the material where concentrations have been modelled, what the baseline figures were to ascertain the change in pollutant concentrations. This information is useful to ascertain impact on health and wellbeing.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		Little information provided on PM10. No information on PM2.5.
<b>18.9</b> para 1166	<b>Health</b>	
para 1167- 1169	Existing situation – Stifford Clay	High proportion of population are without a car or a van. Therefore health impacts arising from changes to bus and rail journeys needs consideration.
18.9.1	Construction	
para 1175	Construction impacts	
	Potential impacts include across all wards	Unclear on whether some of the impacts listed here are positive or negative.
	Stifford Clays ward	Air quality impacts described as temporary – clarity is needed on the definition of temporary here.
	Chafford and North Stifford ward	Stifford Clays Road would experience road traffic noise - this is not defined by how much or for how long. If this road experiences an increase in road traffic it would be expected that there would also be a corresponding change in air quality.
	Belhus ward	As above comment for Stifford Clays Road.
para 1181- 1182	Measures to reduce impacts	Mitigation relies on standard environmental mitigation and effective two-way engagement. It would be suggested that there could be more done to reduce the impacts of increased road traffic noise, air quality arising from road traffic and journey time disruption for non-motorised users and those who do not own a car or van.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	on health during construction	
18.9.2	Operations	
para 1183-1186	Operational impacts	<p>Tilbury Fields is mentioned as a new recreational area that this population could benefit from. Please describe how those who do not own a car or van could benefit from this.</p> <p>Barely noticeable change in air quality noted but not described by how much and whether this is negative or positive.</p> <p>Unclear what open space these wards will have better access to as a result of this project – specifies Tilbury Fields, yet the closest are the Mardyke and Ron Evans Memorial Field.</p>
para 1187-1188	Measures to reduce operational health impacts	Noise impacts noted for Stifford Clays ward but no mitigation specific to this described.
<b>18.11</b>	<b>Built heritage</b>	
para 1206-1208	Existing situation	No assessment of archaeological deposits.
18.11.1	Construction	
para 1209-1211	Construction impacts	Revise definition of setting.
<b>18.12</b>	<b>Contamination</b>	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1216	Construction	See general comments – no identified credible sources but potential for unidentified and low ranked sources – consider potential for migration from adjacent wards.
para 1217	Operation	See general comments.
<b>Chapter 19: West Thurrock and South Stifford ward</b>		
<b>19.1</b>	<b>Overview</b>	States that it is predicted there would be a 21% reduction in traffic flow at the Dartford Crossing in 2029, which would have an impact on noise and air quality in this ward.
19.1.2	Summary of impacts	
	Table 19.1: Summary of impacts during the project's construction and operation	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.
	Traffic	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.
	Noise and vibration	Noise impacts range from minor decreases to minor increases in noise levels.
	Air quality	This does not comment on the improvements they expect to see at this location, which is part of the stated aim of the project?

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	Health	Minor improvements to noise and air quality levels in this ward leading to positive health outcomes. The same approach needs to be taken for minor negative health impacts for other wards. Noise impacts specified above also show a range. Inconsistent reporting.
<b>19.2</b>	<b>Project description</b>	
19.2.1	Construction	
para 1228	Construction activities	See the Council's comments on Construction Update (Appendix H).
para 1229-1230	Construction compounds and Utilities Logistics Hubs	See the Council's comments on Construction Update (Appendix H).
para 1231	Construction related traffic	See the Council's comments on Construction Update (Appendix H).
para 1232-1233	Traffic management	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
19.2.2	Operations	
para 1234	Operational activities	Refer to the Council's response to section 1.4.2 of the Ward Impacts Summaries (paragraphs 21-25) which expresses the headlines of its concerns raised about the operation of the Project.
<b>19.3</b>	<b>Traffic</b>	
19.3.1	Construction	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1236	Construction impacts	<p>See the Council's comments on Construction Update (Appendix H) and in response to section 1.4.1 para 17-20 regarding the Council's concerns about certain assumptions for the base case model and particularly concerns relating to the validation of the model on the local road network and with no testing of the local road peak hour.</p> <p>The construction modelling provided to date raises the following concerns (Reference: Thurrock Cordon Model Construction Modelling Review, May 2021) regarding the high volumes of construction traffic (either construction vehicles or staff vehicles) at:</p> <ul style="list-style-type: none"> <li>▪ M25 Junction 30</li> </ul> <p>Detailed assessment should be carried out where there is significant impact.</p>
para 1237	Measures to reduce construction traffic impacts	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H).
19.3.2	Operations	<p>Refer to the Council's response to section 1.4.2 of the Ward Impacts Summaries (paragraphs 21-25) which expresses the headlines of its concerns raised about the operation of the Project.</p> <p>See comments in response to Construction Update and Operations Update (Appendix H).</p>
para 1238-1245	Operational impacts	<p>No significant impacts are noted on the local highway network, however, a review of the validation of the local highway network is required, no evidence of a review has yet been provided.</p> <p>3rd bullet point on page 541 – unclear what road this is referring to.</p>
para 1246	Changes to journey times	Refer to the Council's response to paragraph 121.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
<b>19.5</b> para 1257	<b>Footpaths, bridleways and cycle routes</b>	Agreed no routes affected.
<b>19.7</b>	<b>Noise and vibration</b>	
19.7.1	Construction	
para 1267	Construction traffic noise impacts	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures.
19.7.2	Operations	
para 1269-1270	Operational noise impacts	A range of noise levels from minor decrease to minor increase expected. Minor increase seems an anomaly given that the rest of the ward is negligible. Figure 19.11 demonstrates moderate increase in noise along the London Road West Thurrock which is unmitigated, although it is acknowledged that there are no moderate impacts in this Ward.
<b>19.8</b>	<b>Air quality</b>	
19.8.1	Construction	
para 1274-1276	Construction impacts	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material or been used to inform air quality impacts.
19.8.2	Operations	
para 1278	Operational impacts	Minor improvements to air quality noted for AQMAs 8 and 9, however, traffic impacts demonstrate an increase in cars. These improvements in air quality need to be evidenced.



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1279	Measures to reduce air quality impacts during operation	How will the above improvements in air quality will be secured? It would be suggested that monitoring needs to be undertaken during operation to ensure the project is having the desired and predicted effects.
<b>19.9</b>	<b>Health</b>	
19.9.2	Operations	
para 1288-1289	Operational impacts	No recognised positive impacts to the community/on health as a result of changes to air quality and noise. Arguably the project is not achieving its objectives is this is not the case?
<b>Chapter 20: Ockendon Ward</b>		
<b>20.1</b>	<b>Overview</b>	
20.1.2	Summary of impacts	
	Table 20.1: Summary of impacts during the project's construction and operation	Refer to the Council's response to section 1.5 (paragraphs 26-32) on the absence of assessment in the EIA of environmental effects on the travel network.
	Traffic	As with all other wards, HE plays down the impact during construction. Local roads within the Council's Ockenden ward will be affected for substantial periods, particularly the North Road corridor and the displaced effects of the long term Ockenden Road closure.  The impact on High Road due to the possible use of Medebridge Road for construction traffic is not recognised by HE.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>The Council has raised concerns about the effectiveness of the embedded mitigation that HE proposes to employ during the construction of the Project, which it puts forward through the Code of Construction Practice (CoCP), the outline Traffic Management Plan for Construction (oTMPfC), and the Framework Construction Travel Plan (FCTP). If effective those management plans would only partly reduce the effects of the construction traffic impacts.</p> <p>Refer to the Council's response to section 1.4.2 of the Ward Impacts Summaries (paragraphs 21-25) which expresses the headlines of its concerns raised about the operation of the Project.</p> <p>See comments in response to Construction Update and Operations Update.</p>
	Public transport	See the Council's comments in response to Construction Update (Appendix H (1)) in relation to impacts on bus network and how these impacts will need to be mitigated.
	Footpaths, bridleways and cycle routes	A general point applicable to most chapters. Where footpaths, bridleways and cycle routes are closed or diverted during construction or permanently they should be appropriate publicity and clear, high quality signage. This point is applicable to most of the ward summaries. Consideration needs to be paid to the knock-on effects of diverted, temporarily or permanently closed footpaths, bridleways and cycle routes during construction and operation across wards in terms of promoting opportunities for WCH for physical activity, commuting and leisure. These routes do not sit in silo or end at the ward boundaries and representing an important means of recreation and travelling, promoting connectivity and reducing severance which is important for resident's health and wellbeing, particularly for vulnerable groups such as older people, those with no access to a car or other vehicle.
	Biodiversity	It is agreed that the route passes through habitat of relatively low ecological value and mitigation is covered in detail in other documents.
	Built Heritage	The table fails to include a lot of the listed buildings and makes no mention of the two scheduled monuments within the ward.
	Contamination	See general comments.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		Noting that this is an active landfill (with an Environmental Permit) any activity within the permit boundary will be subject to EA approval – this is an additional mitigation measure.
<b>20.2</b>	<b>Project description</b>	
20.2.1	Construction	<p>See the Council's separate comments on the draft Development Consent Order (dDCO), the Code of Construction Practice (CoCP) and Register of Environmental Actions and Commitments (REAC), Outline Traffic Management Plan for Construction (oTMPfc), the Framework Construction Travel Plan (FCTP) and the Construction Update in various Appendices.</p> <p>The Council has reviewed cordon construction models covering the borough for each phase of construction and has provided feedback. The Council has also raised concerns about certain assumptions for the base case model and particularly concerns relating to the validation of the model on the local road network and with no testing of the local road peak hour. Updated construction modelling evidence has not been provided within the consultation, yet the consultation documents appear to be based upon this. Without this updated evidence, the Council cannot fully comment on the construction impacts. In the absence of this information there can not have been an effective consultation exercise.</p> <p>The construction modelling provided to date raises the following concerns (Reference: Thurrock Cordon Model Construction Modelling Review, May 2021) regarding the high volumes of construction traffic (either construction vehicles or staff vehicles), within the Ockenden Ward, at:</p> <ul style="list-style-type: none"> <li>▪ Stifford Clays Road, Orsett Village</li> <li>▪ B186, North Ockendon</li> <li>▪ B186, South Ockendon</li> <li>▪ B188, Baker Street village</li> </ul> <p>Further to the strategic modelling that HE is undertaking on the Strategic Road Network, detailed assessment should be carried out where there is significant impact on the Local Road Network (e.g. junction capacity assessments,</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1	The Council's Comments
	<p>shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.). This will specifically include the junction of Medebridge Road with High Road, North Stifford and the North Stifford interchange with A13.</p> <p>It is not clear what mitigation (including road maintenance) is proposed to accommodate the construction related traffic at these locations. This should be detailed in the Transport Assessment.</p> <p>The Environmental Impact Assessment (EIA) does not include a transport chapter and there is not to be an assessment of the usual transport environmental criteria, such as: driver delay fear intimidation, severance, pedestrian and cyclist delay and amenity; safety and accidents; hazardous loads, etc. There are some significant increases in traffic during construction (and operation), which may cause some adverse impacts on pedestrians, including school children and elderly using the adjacent footways or crossing the routes, for example. Mitigation has not been identified, as a result of not completing this assessment work. HE must provide an assessment of these effects and it is not adequate to state that WebTAG guidance doesn't require the assessment or to rely on flawed strategic modelling to indicate effects on local networks. These points would then not be identified within the Transport Assessment if the base and scenario modelling for the construction and operation periods is not correctly undertaken.</p> <p>The details of any monitoring and enforcement to minimise impact and prevent exceedances have not been provided.</p> <p>It is understood that construction traffic would not make optimum use of rail and marine transport, and these modes of transport are largely dismissed by HE with no commitments for its contractors to use rail or marine transport. HE must reflect on the use of non-road transport opportunities during the construction period and incentivise its contractors to use those modes. Suitable governance and compliance regimes need to be put in place to ensure that the contractors meet the commitments that HE is yet to make. All of these matters will need to be identified and consulted upon in due course.</p> <p>Monitoring Construction Traffic Impacts - It is unclear within the oTMPfc and the Construction Update as to what road network impact monitoring is proposed before and during the construction period. Monitoring will be required to ensure impacts of the construction logistics, workforce travel and traffic management required by the scheme on the road network are understood, being actively managed/enforced and impacts on local communities are being mitigated.</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		The oTMPfc proposes a monitoring report (and the FCTP proposes monitoring and adjustment) but the scope of monitoring proposed is not clear, no monitoring scheme or KPIs are provided in any detail. The method of governance of the contractors must be set out within the management plans which accompany the DCO, including the oTMPfc, the FCTP, and the oMHP. The Council has prepared separate responses on the draft versions of those management plans as part of the consultation process.
para 1297-1301	Construction activities	<p>See the Council's comments on Construction Update. In particular, High Road and the North Stifford / A13 junction must be protected from the impacts of construction activity. It is unclear whether Medebridge Road is to be used for access to the works. The Ward Impact Summary makes reference to Medebridge Road at "Construction routes on public roads" but does not reference that road in reference to access to the compounds. HE must determine if Medebridge Road is to be used and if so, what mitigation will be put in place to allow for that access and the interface with High Road, North Stifford and the effects on the North Stifford/A13 interchange?</p> <p>See the Council's comments on Construction Update (Appendix H (1)).</p>
para 1302-1306	Construction compounds	<p>Is access to compounds in the Ockenden ward to be required from Medebridge Road or other local roads within Thurrock? HE states that a haul route will be established from A13. This is assumed not to be straight from A13 but via a local road. Clarification is required on this point and to set out which of the traffic flows outlined in Table 20.2 will be directed along those roads.</p> <p>See the Council's comments on Construction Update (Appendix H (1)).</p>
para 1307-1309	Utilities	See the Council's comments on Construction Update (Appendix H (1)).
para 1310	Construction routes on public roads	See the Council's comments on Construction Update (Appendix H).

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1313-1321	Traffic management	See the Council's comments on oTMPfc and Construction Update (Appendices A (1) and H) and its comment on paragraphs 96-97 ' <i>Traffic Management</i> '.
20.2.2	Operations	<p>Further details of the Council's concerns relating to operational aspects of the project are provided through its responses to the Operations Update review (Appendix H) and other Appendices.</p> <p>Of key relevance is the Council's concerns regarding the base model not replicating local traffic conditions, which remain as per previous comments made to HE through previous consultation reviews and other engagement. The assertions and assumptions made about impacts on specific wards within this Ward Impact Summaries document are therefore not considered reliable and are therefore misleading. They are not fit for purpose and further consultation on updated amended WISSs will be needed.</p> <p>At the time of review of the non-statutory consultation documents, no updated transport models were provided for review alongside this consultation, therefore, we refer to the last submitted model review document issued to HE in June 2020 (LTC Consultation - Review the Effects of the LTC within Thurrock - Sup Con Modelling Review) as well as the local junction assessments report (LTC Consultation - Junction Assessment and Mitigation Analysis issued in October 2020) undertaken to identify possible mitigation at key areas within Thurrock.</p> <p>Detailed responses have been provided by the Council during engagement with HE and in response to other consultation material. The Council has repeatedly expressed many concerns with the proposed configuration of the LTC and its interchanges and the impacts on the local travel network. These are not repeated in response to this Ward Impacts Summaries.</p> <p>Of specific note for the Ockenden ward is the Council's view on an interchange with LTC on North Road, between North and South Ockenden.</p>
para 1322	The completed project	See the Council's comments in response to section 1.4.2 (paragraphs 21-25) of this Ward Impact Summaries on the operation effects of the Project on local roads.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
20.3 para 1327	Traffic	
20.3.1 para 1328	Construction	<p>See comments made regarding clarity on access to the compounds within the Ockenden ward. It is unclear whether Medebridge Road or other local roads are required for access or not? Furthermore HE must clarify what impact there will be on the High Road junction and the North Stifford junction and the location of the haul route from A13?</p> <p>See the Council's comments on Construction Update and in response to section 1.4.1 para 17-20 regarding the Council's concerns about certain assumptions for the base case model and particularly concerns relating to the validation of the model on the local road network and with no testing of the local road peak hour.</p> <p>The construction modelling provided to date raises the following concerns (Reference: Thurrock Cordon Model Construction Modelling Review, May 2021) regarding the high volumes of construction traffic (either construction vehicles or staff vehicles) at:</p> <ul style="list-style-type: none"> <li>▪ B186, North Ockendon</li> <li>▪ B186, South Ockendon</li> <li>▪ Detailed assessment should be carried out where there is significant impact (e.g. junction capacity assessments, shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.).</li> </ul>
para 1329	Measures to reduce construction traffic impacts	<p>See the Council's separate comments in response to the Construction Update (Appendix H) and the CoCP (Appendix C) and oTMPfc and FCTP (Appendices A (1) and (2)).</p> <p>New bridge/viaduct structures – there are general statements and construction methodologies describing bridge and structures being 'built offline' or 'temporarily realigned'. Given the scale of works required there is little specific information given in relation to these works within the consultation material. Further site specific drawings and information are required by the council and other stakeholders in relation to the final schemes design and also the</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community.
20.3.2	Operations	Minimal impacts are expected as a result of the LTC within this ward, with reductions noted along the B186. As provided in previous comments made by the Council as provided within LTC Review of Transport Planning Evidence - Thurrock Council - March 2021 identifies the need to allow for growth within Thurrock, as part of this is potential access from the LTC to South Ockendon. No details regarding passive junction provision at this location to allow access to South Ockendon has been presented.
para 1330-1334	Operational impacts	Refer to the Council's response to section 1.4.2 of the Ward Impacts Summaries (paragraphs 21-25) which expresses the headlines of its concerns raised about the operation of the Project.  No significant impacts have been identified within the Ockendon Ward, however, a review of the validation of the local highway network is required, no evidence of a review has yet been provided.
para 1335-1336	Changes to journey times	No specific comment on changes to journey times for this ward, however, general journey time concerns remain, please see Operational Update note for further information.  Refer to the Council's response to paragraph 121.
<b>20.4</b>	<b>Public transport</b>	
20.4.1	Construction	
para 1340-1341	Buses	No clear information on how long the delays to journey times will be or for how long. It is also unclear where these buses are going to and from.  No mitigation specified other than a diversion. See the Council's comments in response to Construction Update (Appendix H) in relation to impacts on bus network and how these impacts will need to be mitigated.



Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		See the Council's comments in response to Construction Update (Appendix H) in relation to impacts on bus network and how these impacts will need to be mitigated.
para 1342-1343	Rail	Increases in journey times to the rail station – unclear how much of an increase and for how long. No mitigation specified to mitigate the additional traffic through the area and traffic management. It would be suggested that this would be a good opportunity to upgrade/enhance or put in place active travel measures during the construction period to offset the negative impacts.
<b>20.5</b>	<b>Footpaths, bridleways and cycle routes</b>	
20.5.1	Construction	
para 1347	Construction impacts	<p>This sets out the likely length of route closures. Three routes would be closed for over 5 years and two for over 2.5 years. While 20.5.2 provides details of upgrades to the routes post-construction no provision for temporary diversions have been made during construction.</p> <p>The length of the route closures with no reasonable alternative are likely to impact on long-term behaviours which will have a consequential impact on health and wellbeing for local populations. In addition these routes will suffer from environmental impacts which may also inhibit their use. No mitigation or compensation is proposed but it should be.</p>
20.5.2	Operations	
para 1348	Operational impacts	The measures proposed have been part of specific WCH discussions. There is no detailed design specification provided (e.g. widths, surfacing, etc). Additional enhancements will be proposed as part of the Council's WCH recommended improvements.
<b>20.6</b>	<b>Visual</b>	
20.6.1	Construction	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
Para 1353-1354		
para 1355-1356	Construction impacts	<p>20.6.1 confirms that residents on the northern edge of the settlement, particularly on Cheelson Road will have direct views of construction activities. These properties are in close proximity of the works and compound; however, despite this, no specific mitigation measures are proposed, with the reliance solely on generic measures set out in the CoCP/REAC. The reasoning needs to be provided to justify this.</p> <p>Impacts are noted for the public rights of way which could change health behaviours with a consequential impact on health and wellbeing.</p>
para 1357	Measures to reduce visual impacts during construction	Further mitigation is required for the consequential health and wellbeing impacts of the above. No specific mitigation measures are outlined for the impacts noted here and this either needs justification or remedying.
20.6.2	Operations	
para 1362	Measures to reduce visual impacts during operation	The proposed measures, false cuttings and the green bridge, accord with specific documents (EMP OLEMP ES etc).
<b>20.7</b> para 1363	<b>Noise and vibration</b>	
20.7.1	Construction	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1369-1378	Daytime construction noise impacts	Daytime construction noise impacts only noted. Night-time noise impacts are not mentioned despite 24/7 locations highlighted in Figure 20.18.
para 1379-1380	24/7 construction working	Construction impacts likely due to night/weekend working. No commitment at this stage to the specific measures.
para 1381	Construction traffic noise impacts	Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures.  Unclear on where the Veolia Track access is in the ward, the location should be shown/described.
20.7.2	Operations	
para 1385-1387	Operational noise impacts	It is not clear if the noise impacts noted are residual after mitigation has been applied. This needs clarification.
<b>20.8</b> para 1390	<b>Air quality</b>	
para 1391	Existing situation	AQMA 15 is located just outside of the ward alongside the M25.
20.8.1	Construction	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1392-1394	Construction impacts	<p>Construction Traffic Modelling - no updated construction traffic modelling has been issued alongside this consultation material or been used to inform air quality impacts.</p> <p>Air quality impacts described as temporary for a number of properties on North Road and Dennis Road – how long is temporary?</p>
para 1395	Measures to reduce air quality impacts during construction	What monitoring will be in place to ensure the improvements described at two points in figure 20.20 will be realised?
<b>20.9</b>	<b>Health</b>	
20.9.1	Construction	
1404-1410	Construction impacts	<p>Employment impacts on health and well-being over-emphasised without the necessary arrangements in place to secure these benefits to this community.</p> <p>The document states that different groups of people may be more sensitive to factors that affect their health and that some impacts of the construction activities may therefore only affect a small proportion of the population. However, these are likely to be groups which are vulnerable and could have an impact on health which increases health inequalities.</p> <p>Temporary effects described but it hasn't been made clear how long temporary is.</p> <p>To the north of Ockendon close to the route there is a Village Hall and also a Primary School, who may experience impacts which need consideration.</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>Significant journey delays for bus users which may continue for more than two years. Ockendon is noted as an area with a high proportion of households with no car or van (nearly 1 in 4). Accessibility will therefore be significantly reduced.</p> <p>There are consequential impacts on health (physical activity and mental health) as a result of the impacts on the public right of way network (visual, noise etc).</p>
para 1411-1412	Measures to reduce construction health impacts	<p>No further mitigation other than standard mitigation in CoCP and REAC and in community engagement is described. Given the number and nature of multiple impacts described in the report (likely to be cumulative) further mitigation and compensation should be secured. This should include:</p> <ul style="list-style-type: none"> <li>▪ The ability to identify stress, anxiety and depression through community engagement activities and to adequately signpost to local services.</li> <li>▪ Additional support for healthcare, specifically mental health service provision, to assist with stress and anxiety as a result of loss of property and relocation and loss of community networks, as a result of noise from construction impacts.</li> <li>▪ How the training and employment benefits will be secured for the community in Ockendon.</li> <li>▪ Provision of clear information on the duration of disruption.</li> <li>▪ Additional mitigation to respond to reduction in access to services/facilities/social networks as a result of public transport delays.</li> </ul> <p>Additional mitigation to respond to public behaviour changes to use of local public rights of way as a result of closures and environmental impact on these.</p>
20.9.2	Operations	
1413-1414	Operational impacts	<p>Increases in access to employment will be for those who own a car or van only. As above nearly 1 in 4 people in Ockendon will not experience this change. Car ownership is correlated with income and deprivation and so this is important to note in reference to tackling health inequalities, with the potential to further widen them without adequate mitigation.</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<p>For active travel – severed links will have been re-linked only, providing the same access as previous with little additional benefit to residents. It would be suggested that mitigation should go further to ensure routes do not just 'end' and are linked into networks either end to add an enhanced quality of life through increased access through walking and cycling in the long-term.</p> <p>Noise impacts are noted, presumably these are residual after noise mitigation has been applied. These will have the potential to have an impact on health and wellbeing in this ward – notable is the link between noise and cardiovascular effects. This ward are already in the top quintile for all deaths from CHD and in the top 40% for early deaths (under 75 years) from cardiovascular disease.</p> <p>Why are the visual effects listed as temporary? And if so how long is temporary?</p> <p>There are likely to be some cumulative intra-project health impacts in this ward linked to noise, visual, access and changes to their leisure and outdoor exercise environment.</p>
para 1415	Measures to reduce operational health impacts	The only measures listed to reduce operational impacts are the embedded project design mitigation and the green bridge. More should be done to address the number of impacts that will have a cumulative impact on this ward. These will be proposed as part of the Council's WCH recommended improvements.
20.11 para 1428	<b>Built heritage</b>	
para 1429	Existing situation	No information on the archaeological deposits present.
	Scheduled monuments	Unlike the summary table does include the scheduled monuments.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
20.11.1 para 1430	Construction	
para 1431	Construction impacts	No impacts identified on archaeology. No comment on the access road which leads directly to the scheduled sites. Revise definition of setting.
<b>20.12</b>	<b>Contamination</b>	
para 1436- 1437	Existing situation	Noting that this is an active landfill (with an Environmental Permit) any activity within the permit boundary will be subject to EA approval – this is an additional mitigation measure.  The text should reflect whether more potential contamination sources were identified from historical mapping and whether those identified are only the ones considered 'credible'.  See general comment regarding instability hazards.  Why isn't ground investigation mentioned?  What are the potential contaminants?
20.12.1 para 1438- 1439	Construction	See general comments.
para 1440	Construction impacts	Should identify the potential release of contaminated dust/asbestos fibres. Should identify the potential change to existing gas regimes and creation of offsite migration of ground gases.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		See general comments.
para 1441-1444	Measures to reduce contamination risk	<p>Soil handling and re-use guidance – add the reference for the outline Materials Handling Plan. The oMHP does not cover re-use criteria - is there an outline Re-use Guidance document?</p> <p>Add 'in line with the Incident Management Plan to be presented in the topic specific Environmental Management Plan'.</p> <p>It is understood that enabling works will include further intrusive investigation and assessment by the contractor(s) to identify whether and what mitigation is required – for clarity this should be identified here as currently worded could be construed as based on the currently available GI data. Add 'in line with the Discovery Strategy/Watching Brief Protocol to be presented in the topic specific Environmental Management Plan'.</p> <p>See general comments.</p>
20.12.2 para 1445	Operations	See general comments.



## 3.2 Summary and Recommendations

### Summary

- 3.2.1 This document sets out the Council's comments on the Ward Impact Summaries and responds only to the Wards north of the river.
- 3.2.2 The key themes of concern to the Council are:
- i. LTC will have long-term impacts and 6-8 years of disruption that may or may not be mitigated. Relevant to all wards, there is a lack of real benefits for the Council from LTC, in terms of provision of open space, increased connectivity, active travel, investment, and legacy in terms of local regeneration.
  - ii. Key strategic issues for existing communities and future growth, in all/multiple wards, are set out below:
    - a. Without guaranteed delivery of South Ockendon/ TLR junctions or local road network mitigation schemes, there is no certainty that LTC will support connectivity, sustainable growth and the Local Plan.
    - b. Poor local connectivity and a failure to explicitly plan for and design a scheme with the objective of supporting the delivery of strategic sites for housing and economic growth including future port expansion.
    - c. Need to address the impact of noise, air quality, severance and flood risk considerations which has led to an increase in land take in certain locations thereby further reducing the supply of land for development.
    - d. Greater emphasis should be placed on active travel and public transport has been overlooked. The scheme provides enormous opportunity to enhance active travel and public transport the local level, which improves health and the environment, and mitigates against a range of adverse impacts such as air/noise pollution and relieving congestion.
  - iii. Generic non-specific ward information is coming through into the ward summaries from technical and other documents, but it does not provide the level of granularity to inform ward level impacts relating to health and wellbeing of local residents and to have provided the basis for an effective consultation.
  - iv. Although health is being picked up in terms of the health profile that is provided within each ward summary it is not being carried through to the impacts and in determining what mitigation is required to support and protect the health and wellbeing of local residents. Similarly health inequalities are mentioned, but there is no clear information about what mitigation will be employed to reduce these inequalities.
  - v. Throughout each of the ward summary chapters' reference is made to changes in air quality, noise and other environmental factors as temporary, but there is no clear definition of what is meant by the term 'temporary' in the context of the project. This should be made clearer to allow an informed understanding of potential impacts and we reserve the right to comment fully when this has been updated.
  - vi. Throughout the ward summaries there is an inconsistent application of the methodology to different environmental elements. For example, mitigation measures to reduce the impact of light pollution at night is considered for heritage but there is no mention of this in relation to population and human health. Similarly, green bridges as a form of mitigation

are mentioned in relation to habitats and biodiversity, but omitted for population and human health.

- vii. General conclusions made about different environmental factors do not appear to be consistently applied across the environmental sections of the document. For example, in the Chadwell St Mary Ward Summary, it is concluded that there will be no significant noise impacts in the noise and vibration section of the report. However, paragraph 630 and the corresponding bullet points state that there will be significant adverse effects relating to noise.
- viii. There is more up-to-date data which could be used to inform the health profiles for each ward summary. This information is available via Public Health England's Local Health website. We would also advise that Highways England ensure that all relevant ward level health data be included in each ward summary to ensure that all vulnerable groups and populations are accounted for, in determining impacts and associated mitigation needs.
- ix. Only broad and non-specific information relating to factors that will affect the health and wellbeing of local residents in wards are outlined in this document. The impact of traffic and public transport links is included, however it is not explained how these effects will be felt in the surrounding wards by the local population.
- x. Although in the initial section it states that Archaeology is to be assessed within these wards this has not happened. The assessment of the Scheduled Monument at North Stifford is very poor. Considering this is a nationally important heritage asset equivalent to a grade I listed structure there is very little detail provided when as a result of LTC this will be completely destroyed. It is known that important non-designated assets will be destroyed, however, there is no attempt within the ward summaries to describe their presence or the impact of the development on them. The document does not appropriately assess the historic environment impacts, with the exclusion of the majority of the archaeological data. As a result of this omission there is no assessment of the archaeological impact of the road proposals. In some places the summary in the table does not correlate with the information within the more detailed text.
- xi. There is a high degree of uncertainty regarding the hazards and mitigation of historical contamination.
- xii. Feedback has been provided by the Council on cordon construction models for each ward. Updated construction modelling evidence has not been provided within the consultation, yet the consultation documents appear to be based upon this out-of-date data. Without this updated evidence, the Council cannot fully comment on the construction impacts relating to traffic.
- xiii. Further to the strategic modelling that HE is undertaking on the Strategic Road Network, detailed assessment should be carried out where there is significant impact on the Local Road Network.
- xiv. During construction and operation, the effects of light pollution have not been considered, particularly in relation to 24/7 construction hours and in wards that already have existing health issues.
- xv. Increases in traffic on local roads will detrimentally affect air quality. In this response the Council has highlighted concerns in the following areas:
  - a. Tilbury Fields
  - b. Buckingham Road (Linford)

- c. The A1089
  - d. Dock Road and Calcutta Road
  - e. Fort Road
  - f. The A13
- xvi. The Council is concerned that insufficient work has been undertaken to enable HE to make firm commitments as to the type and amount of material that can be transported by marine transport including via PoTL and Tilbury2. At present whilst contractors are encouraged to investigate this further as part of their MHPs and TMPs there is no firm commitment to do so. Maximising use of marine transport will help reduce impacts on the road network and local communities during the construction period and help reduce the schemes environmental and carbon impacts.
- xvii. Construction relating to tunnelling works at the northern tunnel compound in East Tilbury will be undertaken at night. This will have noise, vibration and health impacts.
- xviii. There are general statements and construction methodologies describing new bridges and structures being 'built offline' or 'temporarily realigned'. Given the scale of works required there is little specific information given in relation to these works within the consultation material.
- xix. There is a lack of information on potential temporary diversions of several roads within various wards.

## Recommendations

- i. Real benefits in terms of provision of open space, increased connectivity, active travel, investment, and legacy in terms of local regeneration should be realised. Mitigation and other measures that will benefit the Council need to be legally binding through obligations, Agreements or independent monitoring and verification of CoCP, Travel Plans, wider network improvement, for example.
- ii. LTC needs to address the key strategic issues for existing communities and future growth, in all/multiple wards, as set out in summary paragraph b. above.
- iii. Specific ward information should be provided in the ward summaries to inform ward level impacts relating to health and wellbeing of local residents.
- iv. Health should be carried through to the impacts and in determining what mitigation is required to support and protect the health and wellbeing of local residents. Similarly clear information about what mitigation will be employed to reduce health inequalities is needed.
- v. It needs to be made clear what is meant by 'temporary' in the context of the project when referencing changes in air quality, noise and other environmental factors.
- vi. The methodology should be applied consistently to different environmental elements throughout the ward summaries. See summary paragraph f. above for some examples of where this has not happened.
- vii. General conclusions made about different environmental factors and effects need to be applied consistently throughout the document.

- viii. More up-to-date data, available via Public Health England's Local Health website, could be used to inform the health profiles for each ward summary. We would also advise that Highways England ensure that all relevant ward level health data be included in each ward summary to ensure that all vulnerable groups and populations are accounted for, in determining impacts and associated mitigation needs.
- ix. A further understanding of how closures, diversions and other traffic management measures will impact on different wards throughout the duration of the construction phase will be important in accurately determining appropriate mitigation measures for Walkers, Cyclists and Horse-riders. Where WCH routes are affected, appropriate publicity and clear, high quality signage should be used to inform local residents.
- x. The impact of the development on the non-designated assets needs to be identified, especially as the road running through these wards bisects one of the largest cropmark complexes in the County, many of which are associated to the scheduled monuments within or adjacent the corridor. To provide an accurate assessment of the impact of the proposal the archaeological deposits recorded in the Local Historic Environment Records need to be assessed as part of this phase of work. This has been undertaken as part of the initial work but an understanding of the impact needs to feed into this document.
- xi. HE should identify whether or not there are credible potential sources of contamination, and although it is understood that further intrusive investigation and ground condition assessments are to take place during detailed design, their effects should be identified as core mitigation.
- xii. The updated construction modelling evidence, which the consultation documents appear to be based on, should be provided to the Council. Without this updated evidence, the Council cannot fully comment on the construction impacts relating to traffic.
- xiii. HE should undertake detailed traffic assessments where there is significant impact on the Local Road Network (e.g. junction capacity assessments, shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.) and outline what mitigation is proposed to accommodate additional traffic. This should be detailed in the Traffic Assessment. Details should be provided on traffic monitoring and enforcement within wards, both before and during the construction period.
- xiv. Impacts from light pollution should be included during and post construction.
- xv. Additional air quality monitoring is required on local roads as this will affect residents.
- xvi. HE should make firm commitments as to the type and amount of material that can be transported by marine transport including via PoTL and Tilbury2.
- xvii. Further information is needed to understand the mitigation in place for residents in the East Tilbury near the northern tunnel compound as construction work will occur at night.
- xviii. Additional site specific drawings and information are required by the council and other stakeholders on the final schemes design of bridges and structures. The scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community is also required.
- xix. The Council require more information when and when temporary road diversion within wards occur. Without this information, the Council cannot assess the impacts of these.



## Appendix H

Construction Update

(electronic pg. 2)

Operations Update

(electronic pg. 42)

## Appendix I

You Said We Did

(electronic pg. 67)

## Appendix J

Your Property and Compensation

(electronic pg. 101)

Thurrock's Land Interests

(electronic pg. 116)

## Appendix K

Utilities Response

(electronic pg. 125)



## Lower Thames Crossing

Review of Construction Update

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of Construction Update

**Doc Ref:** Revision B

**Date:** October 2021

	Name	Position	Signature	Date
<b>Prepared by:</b>	Various	-	-	July/August 2021
<b>Reviewed by:</b>	Adrian Neve	Director	AN	03.08.2021
<b>Approved by:</b>	Chris Stratford	Consents and DCO Senior Consultant	CS	08/09/2021
<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	-	AN	CS
B	05/10/2021	Issued to National Highways	-	CB	CB

This report has been prepared by Stantec UK Limited ('Stantec') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which Stantec was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). Stantec accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the Construction Update document.
- 1.1.2 This document sets out the Council's comments on the proposed Construction Update.
- 1.1.3 The document follows the same structure as the Construction Update and responds only to the sections relating to the north of the river.
- 1.1.4 The key general points of concern are set out below, although the summary of key technical matters are set out in the 'Summary and Recommendations' below:
  - a. That the document is written to infer that all points of concern and contention between the Council and HE have been resolved. This is far from the case as is evidenced by the myriad of unresolved issues recorded with HE in the response that the Council has made during engagement; during the consultation phases; and to the aborted initial submission in October 2020. This is a major shortcoming as it indicates that HE has not in fact recognised, or had regard to, the Council's previous engagement contrary to the legal obligation to take account of comments made in the context of formal consultation.
  - b. This document must be updated to align with the control documents that are being consulted on and are listed in Table 1.1 on page 15 of the Construction Update. The Council is making representations on those documents which are referenced in this response document but are not repeated here.
  - c. The poor quality of this document, with formatting errors and low resolution images, is evidence of the rushed nature of these proposals which feeds through to HE's absence of recognition and resolution to the concerns being raised by the Council.
  - d. In terms of cultural heritage, particularly buildings, the issue is that historic/listed buildings and conservation areas (including the three Grade II listed buildings being demolished) are not mentioned at all. This element of the documentation needs to be worked up by HE and subject to further consultation.

## 2 Review of Construction Update

### 2.1 Comments

Table 2.1: The Council's Comments on the Construction Update

Relevant Section in the Construction Update		The Council's Comments
<b>Chapter 1: Introduction</b>		
1.1	About the Construction Update (pg. 4)	<p>The DCO preparation, submission and Examination is the period through which to assess effects and set the boundaries within which the contractors will work. The suite of control documents which will be examined will need to provide a robust framework which provides a strict set of rules and guidelines within which the contractors will design the detail for the project and undertake the construction period. It is not suitable to leave changes in method to come forward following consent.</p> <p>Figures throughout the document are incorrectly titled, e.g. the many Figure 1-1s. Some figures and diagrams within the document are illegible due to being poorly reproduced e.g. "Figure 1-1 Waste hierarchy diagram" on page 71.</p>
1.4	Outline of the construction programme (pg. 7-10)	<p>a. It should also be clear that building the works would include:</p> <ul style="list-style-type: none"> <li>i. a wide range of temporary (but in some cases long-term) traffic management measures across the network.</li> <li>ii. significant construction logistics and construction work force traffic across the road network throughout the duration of the works.</li> </ul> <p>b. The works to the north of the development are split into three sections for construction. From the construction programme it appears works on these will be undergone simultaneously and each section will comprise of various phases, which have been roughly programmed out in the report. The LLFA would need to be consulted on how surface water will be managed during the construction of each phase highlighted. This will require the contractor to submit a detailed 'Construction Surface Water Management Plan' to the LLFA outlining how surface water will be managed for review/ approval before any works commence. Provisions should be made within the REAC or Schedule 2 – Requirements that outline this approval process to ensure it takes place.</p>

Relevant Section in the Construction Update		The Council's Comments
	Leaving a positive legacy (pg. 12)	<ul style="list-style-type: none"> <li>a. The aspiration to encourage and help local businesses to benefit from works associated with the Project is positive, however, HE must indicate how it will work with and support local businesses to ensure they can be compliant with the requirements of the Project which need to include achieving FORS Gold status and complying with CLOCS standards. These are matters that can hinder smaller companies for being able to contract onto major Projects.</li> <li>b. There is a lack of securing of any provision for skills and employment, such as local targets, social value procurement, apprentices, etc.</li> </ul>
1.5	Control documents: securing mitigation for the project (pg. 13)	Reference is made in the report to 'Control Documents'. Reference does not appear to have been made to a 'Construction Surface Water Management Plan' that outlines how surface water flood risk will be managed during construction. This document will need to be produced for each phase of construction work and submitted to the LLFA for review/ approval before any works commence.
	The control plan (pg. 14-18)	<ul style="list-style-type: none"> <li>a. The ES and the DCO are legally binding documents and need to be indicated within the Control Plan – from which the other plans should be derived and must be consistent.</li> <li>b. It is not clear how the control plan and the multiple processes and activities set out within them will be managed, co-ordinated and governed by HE during the implementation process. How will the local authorities and local communities be engaged and communicated with during this process? Various fora and groups are proposed throughout the consultation documents – Joint Operations Forum (JOF), Traffic Management Forum, Travel Plan Liaison Group, Community Liaison Forums etc – but this currently appears disjointed and uncoordinated.</li> <li>c. Governance and Engagement - The Council would expect, as with other major transport schemes e.g. Silvertown Tunnel, that HE establishes an Implementation Group made up of representatives (at a senior executive level) of all the impacted local planning and highway authorities and the Department for Transport. HE should be required to consult with this Implementation Group on matters related to planning, constructing and operating the LTC scheme.</li> <li>d. oTMPfC – see the Council's separate comments on this document.</li> <li>e. Wider Networks Impacts Monitoring and Management – see the Council's separate comments on this document.</li> <li>f. oMHP – see the Council's separate comments on this document.</li> <li>g. Construction Logistics Plans (CLPs) – the Code of Construction Practice (CoCP) includes a commitment that contractors will produce a CLP which covers their works. HE has also committed to contractors meeting</li> </ul>

Relevant Section in the Construction Update		The Council's Comments
		<p>best practice standards for Construction Logistics and Fleet Management as set out in CLOCS and FORS which is welcomed. CLOCS requires the production of a detailed CLP by contractors and notes their importance in planning, managing and monitoring construction logistics. The Council believes CLPs should also be a key control document and should have a framework established as part of the examination of the proposals and not left for the appointed contractors to determine a weak and unenforceable document.</p> <p>h. Draft Archaeological Mitigation Strategy: There is concern that not enough consideration has been given to the destruction of a scheduled monument. It has been recommended that a specific mitigation strategy should be agreed in relation to the complete loss of this nationally important monument.</p>
	Figure 1-3 (pg. 19)	<p>a. The "Construction Phase" box describes 'various schemes/detailed design/management plans' etc., which is vague and should be more defined. The monitoring during construction period will be required to understand, manage and mitigate impacts on local communities</p> <p>b. There is no mention of CLPs. See comments above. CLPs should be referenced as key control document.</p> <p>c. Wider Monitoring and Evaluation – see comments above. Whilst traffic impact monitoring is proposed it is not clear how that fits into a wider Monitoring and Evaluation plan.</p>
1.6	Sustainable construction: (pg. 20)	<p>a. There is no mention or firm commitments to the use of marine transport to reduce road network and environmental impacts. See separate comments on oTMPfc and oMHP.</p> <p>b. It should be clear how HE is committed to ensuring low emission vehicles are used in all construction logistics fleet vehicles. It is surprising that HE makes no reference to its commitment to best practice standards set out in CLOCS and FORS. CLOCS and FORS both aim to reduce construction logistics/fleet impacts on community safety in its widest sense (zero collisions, improved air quality and reduced emissions, fewer vehicles, reduced reputational risk). Ensuring high quality CLPs are produced and delivered by contractors are critical in meeting the CLOCS and FORS standards and therefore a robust framework CLP should be a control document.</p> <p>c. Work force Travel Plans should form a component to maximise the use of sustainable transport by construction workers and should therefore be referenced in this section.</p> <p>d. The 'Sustainable Construction' section does not properly summarise matters in the Carbon and Energy Plan, setting out any targets and commitments. The Construction Update only has a short 2 page section on climate. The REAC is referenced, and it includes high level examples of the mitigation measures included. We expected targets and commitments to be stated much more clearly and more ambitiously within the updated REAC.</p>

Relevant Section in the Construction Update		The Council's Comments
	Hybrid or electric plant (pg. 21)	<ul style="list-style-type: none"> <li>a. Are the figures set in the document to be targets with incentives to exceed or is this just a list of figures which will form no relevance or commitment following consent.</li> <li>b. HE should broaden this section to include other non-polluting fuels to allow the use of other technologies as they come on stream, such as hydrogen.</li> <li>c. Whilst of no direct impact on sustainability the construction methodology should reflect the use of AV as these will be far more commonplace at the time of construction and would be more environmentally sound.</li> </ul>
<b>Chapter 2: Project-wide construction</b>		
2.1	Construction overview (pg. 24)	It should be noted that there will be significant construction logistics activity and workforce travel during both the initial and main works and that the commitments to impact mitigation and reducing environmental impacts must be extended to these periods.
	Temporary traffic management (pg. 36-37)	<ul style="list-style-type: none"> <li>a. Thurrock Council has reviewed cordon construction models covering the borough for each phase of construction and has provided feedback. The Council has also raised concerns about certain assumptions for the base case model and particularly relating to the lack of validation on the local road network and with no testing of the local road peak hour. Either the strategic model should be validated on the key local roads, or validated local models should be prepared and provided as evidence regarding the performance of key areas of the local road network. We are aware some micro-simulation models have been created, but they have not been provided as evidence and may not be validated against observed traffic flows.</li> <li>b. Updated construction modelling evidence has not been provided within the consultation, but yet the consultation documents appear to be based upon this. Without this updated evidence, the Council cannot fully comment on the construction impacts.</li> <li>c. The construction modelling provided to date raises the following concerns (<b>Reference: Thurrock Cordon Model Construction Modelling Review, May 2021</b>) regarding the high volumes of construction traffic (either construction vehicles or workforce vehicles) at: <ul style="list-style-type: none"> <li>i. Rectory Road, Orsett Village</li> <li>ii. Stifford Clays Road, Orsett Village</li> <li>iii. B186, North Ockendon</li> <li>iv. B186, South Ockendon</li> <li>v. B188, Baker Street village</li> </ul> </li> </ul>

Relevant Section in the Construction Update	The Council's Comments
	<ul style="list-style-type: none"> <li>vi. A1014 North Bound</li> <li>vii. A128 Brentwood Road</li> <li>viii. A1089</li> <li>ix. Buckingham Hill Road North Bound</li> <li>x. A13 West Bound at Stanford Le-Hope Bypass</li> <li>xi. Orsett Cock Roundabout</li> <li>xii. Manorway Roundabout</li> <li>xiii. M25 Junction 30</li> <li>xiv. Asda Roundabout</li> <li>xv. Daneholes Roundabout</li> <li>d. Detailed assessment should be carried out where there is significant impact (e.g. junction capacity assessments, shuttle working/contra flow/temporary signal assessments, swept path testing on unclassified roads to check the feasibility of HGV use and if any widening is needed, etc.).</li> <li>e. It is not clear what mitigation (including road maintenance) is proposed to accommodate this traffic. This should be detailed in the Transport Assessment.</li> <li>f. The Environmental Impact Assessment (EIA) does not include a transport chapter and there does not appear to be an assessment of transport environmental criteria, such as: driver delay fear intimidation, severance, pedestrian and cyclist delay and amenity; safety and accidents; hazardous loads, etc. There are some significant increases in traffic during construction (and operation), which may cause some adverse impacts on pedestrians, including school children and elderly using the adjacent footways or crossing the routes, for example. Mitigation has therefore not been identified, as a result of not completing this assessment.</li> <li>g. The details of any monitoring and enforcement to minimise impact and prevent exceedances have not yet been provided.</li> <li>h. It is understood that construction traffic would not make optimum use of rail and river, because of the impact on A1089. Details on the assessment of these options has not been provided.</li> <li>i. See Council's detailed comments on oTMPfc in separate document.</li> </ul>
Topsoil removal (pg. 38)	<ul style="list-style-type: none"> <li>a. HE must add to its documentation that removal of topsoil will adopt best practice measures and be undertaken in accordance with the measures agreed to address the various commitments in the REAC.</li> <li>b. A similar statement to that above regarding reinstatement should be added.</li> </ul>

Relevant Section in the Construction Update		The Council's Comments
		c. Removal of Topsoil is indicated as part of the proposed construction process. This increases the risk of flooding as not only does it remove the permeable top layer that absorbs rainfall, it can also expose clayey impermeable sub-strata that will increase the speed/ volume of overland run-off in a rainfall event. Measures for how this risk will be managed should be outlined in the 'Construction Surface Water Management Plan' for review/ approval by the LLFA before the works commence.
	Temporary soil storage (pg. 38)	After 'best practice measures' add in accordance with the measures agreed to address the various commitments in REAC.
	Management of excavated material and earthworks (pg. 40)	a. Text in bold to be added ' <i>Managing this excavated material, and re-using <b>the chemically and physically suitable materials</b> for earthworks...</i> ' b. Comments have been made on the outline Materials Handling Plan and the outline Site Waste Management Plan.
	Site fencing and hoarding (pg. 41)	a. There will be extensive fencing in place often for extended periods of times. In some locations this will be in close proximity to residential and other properties. There is an acknowledgement that the hoarding and other materials used are appropriate to the location and activities within the compound b. Other major infrastructure construction projects have innovatively used hoarding in some locations to provide greening, wayfinding information, temporary community artwork or other information. This can help reduce its visual impact, support wider social and environmental objectives and help in community engagement etc. This should be considered further by HE.
	Permanent culverts (pg. 41)	It is highlighted that agreement is required from the LLFA to install 'Permanent Culverts', however it should also be noted that any works to an Ordinary Watercourse (Permanent or temporary) that might obstruct or restrict the flow of water, will require approval from the LLFA under the Protective Provisions requirements. Opportunities should be taken to daylight, restore and enhance existing Ordinary Watercourses as part of the scheme to provide betterment.
	Drainage (pg. 42)	The report outlines the provisions that will be made for temporary and permanent 'Drainage' systems. A variety of SuDS measures have been highlighted, however no reference has been made to the design of the SuDS strategy being compliant with the LLFA's requirements outlined in the Essex SuDS Design Guide (i.e. Points of Discharge, Discharge rates, water quality provisions etc.).



Relevant Section in the Construction Update		The Council's Comments
	Road widening works (pg. 46)	For any road widening works, measures should be in place to mitigate against flood risk associated with an increase in impermeable area caused by the road widening. Opportunities should also be sought to provide betterment on existing run-off rates and water quality, as outlined in the Essex SuDS Design Guide where this is practicable.
2.4	Utilities and utilities works (pg. 48-49)	<p>To help understand scope/impacts Table 2-1 should also provide:</p> <ol style="list-style-type: none"> <li>Period of works / programme</li> <li>If the works are off-line (off highway) or on-line or mixture</li> <li>If the works will require traffic management – link to oTMPfc</li> <li>Table 2.1 Summary of major utility works proposed in each section, p 49 – how do these utility works impact on supply of water, electricity and gas for local residents? There is a potential risk of perception of or actual fuel insecurity, particularly for low income families, older people living in deprivation and/or alone and other vulnerable groups across Thurrock. What mitigation measures are proposed to reduce any potential impacts, especially given that some of the existing sub-stations require upgrading or are at capacity?</li> <li>Residents require utilities to stay well for example, water for cooking and cleaning and electricity and gas for cooking and as a means of heating their homes.</li> <li>For some of the networks and substations that are being embedded as part of the project and are outlined in Table 2.1 it is not clear where in Thurrock these are proposed. This needs to be clearer and should be added to the map and table within the report.</li> </ol> <p>Reference is made to utilities and utility works. Provisions are made within the REAC commitments for this, however, just to re-iterate that any such works that might impact an Ordinary Watercourse, as described above would require approval from the LLFA under the Protective Provisions requirements. This also applies to the diversion of any existing Ordinary Watercourses.</p> <ol style="list-style-type: none"> <li>Where utility works are taking place, for example, utility diversion and connecting utilities to construction sites, may require switching off some of the utilities at certain times, how will this affect supply to resident's homes?</li> <li>What will the health impact be on residents and particularly vulnerable residents whose supply is diverted and/or interrupted? Will they perceive or will there be an actual impact on fuel security which could impact on both their physical and mental health and wellbeing? We would like to understand what mitigation HE are proposing to reduce the potential impacts of these utility works on residents. We note that this is particularly</li> </ol>

Relevant Section in the Construction Update		The Council's Comments
		important given that some of the existing sub-stations require upgrading or are almost at capacity. Finally, all networks and substations affected/diverted or created as part of the LTC project need all to be clearly outlined on the map and table within this report.
2.5	Construction of the tunnels and approach structures (pg. 52)	<p>a. It should be made clear that precast concrete segments will be manufactured on site and as such the constituent materials will be imported and that import operation is currently proposed to be by road. It is acknowledged that concrete batching for the segments will take place on-site, but the document does not describe the locations of the segment factory and the batching plant. Where will these activities take place on the site? It is expected that there will be rejected segments and concrete that will not comply with mix standards. These materials will need to be disposed of and so HE should set out how that will be handled. Will on-site crushing be carried out?</p> <p>b. It is possible that the road tunnel may have a secondary lining. Where will that material be prepared and how will it be imported and waste disposed of?</p>
	Tunnel boring machines (pg. 53-54)	<p>a. It should be stated how these will be transported to the construction site if the PoT2 is not used.</p> <p>b. The documents are silent on the removal of the TBMs and the associated machinery and equipment.</p> <p>c. The document is also silent on the movement of rails, ducting and pipes associated with the TBMs.</p>
	Tunnel construction risk mitigation (pg. 55)	<p>a. Why are changing ground conditions only identified for south of the river? There are known sink holes in the Gosham landfill and erosion is reported along the northern bank.</p> <p>b. The reader would benefit from knowing what 'changing ground conditions' are expected to be.</p>
2.6	Construction compounds and Utility Logistics Hubs (pg. 56)	<p>a. Figure 2-15 Construction Compound Indicative layout p53 and Figure 2:18 ULH indicative layout/alternative layout – There is no sign of secure cycle parking to encourage workers to travel to work by sustainable, active travel modes which is better for the environment (air quality, noise and climate) as well as support the health of workers. We would expect this to be included within all of the compounds. It is noted that the CoCP/REAC state there will be parking for vehicles and bicycles – see the Council's separate comments in response to these documents.</p> <p>b. Various Utility Hubs and Construction Compounds have been highlighted along the development route and indicative details have been provided in the report. REAC Ref. RDWE006 outlines commitment to manage construction Surface Water in an appropriate manner, which is acceptable. However final 'detailed' design of the drainage strategy for these areas should be subject to review and approval by the LLFA. In each instance the proposed drainage strategy should be compliant with the LLFA's requirements outlined in the</p>

Relevant Section in the Construction Update	The Council's Comments
	<p>Essex SuDS Design Guide (Link: <a href="https://www.essexdesignguide.co.uk/suds">https://www.essexdesignguide.co.uk/suds</a>). Any drainage strategy should have a suitable maintenance regime in place to ensure the benefits this delivers can be sustained throughout the construction period. For a scheme of this scale an appropriate allowance for climate change should also be factored into the detailed design of the drainage system.</p>
<p>Construction compounds (pg. 56)</p>	<ul style="list-style-type: none"> <li>a. Construction compounds – the Construction Update describes a range of issues that have been taken into account in locating compounds. It is unclear whether a range of compound locations were identified and assessed before the current proposed locations were selected. Further information is required on this process and should be shared with the Council.</li> <li>b. HE should state a clear reference/commitment to best practice construction logistics, site and fleet management practices - CLOCS/FORS to minimise impacts on community safety, environment etc.</li> <li>c. Proximity of Brentwood Road to residential homes in Chadwell St. Mary is a concern. There are 3 x high-rise tower blocks to the north of Chadwell St Mary which may not benefit from the noise mitigation measures.</li> <li>d. Proximity of the Stanford Road compound to Whitecroft Care home is concerning from a health and wellbeing perspective.</li> <li>e. Proximity of the Long Lane compound to the (relocated) Gammonfield Traveller site and to residential areas.</li> <li>f. Proximity of the Stifford Clays Road East compound to Baker Street residential is a concern.</li> </ul>
<p>Table 2-2 Construction compound types and descriptions (pg. 57-58)</p>	<ul style="list-style-type: none"> <li>a. It should be made clear whether adequate space to hold vehicles has been made within compounds and whether any on-street holding space will be required. On-street stacking and holding spaces will not be appropriate or safe.</li> <li>b. What will be included in the welfare facilities? Is this just an offer of basic first aid or would it involve more formal health service for supporting workers in terms of reducing the impact on local services in Thurrock. More information is required.</li> </ul>
<p>Table 2-3 Construction compound names and areas (pg. 58-61)</p>	<ul style="list-style-type: none"> <li>a. To help understand scale of construction logistics / site impacts these tables should also indicate: <ul style="list-style-type: none"> <li>i. Programme duration of use / time period</li> <li>ii. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel)</li> <li>iii. Vehicle type/Mix</li> <li>iv. Number and location of access points</li> </ul> </li> </ul>

Relevant Section in the Construction Update		The Council's Comments
		<p>b. There is no indication/explanation of how compound areas were derived and if they are now minimal or what criteria determined their size. Also, no indication of compound or ULH layouts or major activities descriptions, e.g. Figure 4-4 is too broad. Furthermore, there is no indication of construction impacts from the compounds.</p>
2.7	Utility Logistics Hubs (pg. 61-63)	<p>a. Proximity of Hornsby lane and Brentwood Road Utility hubs to Orsett Heath and Chadwell St Mary residents a concern due to the possibility of noise, traffic movements and air quality issues arising from the operation of the hubs.</p> <p>b. Proximity of Long Land Utility hub to residential and Thurrock Community Hospital a concern due to the possibility of noise, traffic movements and air quality issues arising from the operation of the hubs.</p>
	Table 2-4 Utility Logistics Hubs (pg. 64-66)	<p>a. To help understand scale of construction logistics / site impacts these tables should also indicate:</p> <ul style="list-style-type: none"> <li>i. Programmed time period</li> <li>ii. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel)</li> <li>iii. Vehicle type/Mix</li> <li>iv. Number and location of access points</li> </ul> <p>b. It would be helpful to have the dates of when these ULHs would operate to enable a full assessment of any crossover works which may negatively impact on local residents in terms of supply of utilities. As noted above utilities are important for supporting health and wellbeing. The report currently only states how many months ULHs would be required for.</p>
2.8	Construction traffic and haul roads (pg. 67)	See Council's separate comments on oTMPfc.
	Challenges and considerations (pg. 67)	<p>a. It is the Council's opinion that very little attention has been paid to the feedback provided by the Council and this is evidenced through the myriad comments and issues which are unresolved between the Council and HE.</p> <p>b. See the Council's separate comments and concerns on documents and correspondence shared at the various formal consultation stages and the engagement phases that continue to progress in addition to the consultation.</p>

Relevant Section in the Construction Update	The Council's Comments
	<p>c. HE specifically refers to the redesign of the A13 interchange and how that has reduced or removed the need for traffic management measures. This is extremely misleading and disingenuous and so should be evidenced if it is to be stated in the documents. The Council has consistently and repeatedly questioned the proposed permanent state layout of the interchange between A13/A1089/A128 Orsett Cock and LTC. The Council is concerned that the proposed layout is not safe, is convoluted and continues to create impacts on affected sections of the Local Road Network when LTC is operational. These concerns are raised throughout the Council's responses during earlier consultations and engagement and are recorded in the Issues Log which accompanies the Statement of Common Ground. Directly related to the unsatisfactory arrangement of the interchange will be the mechanisms to manage the construction period for the interchange – with which the Construction Update is concerned. HE has not presented a clear phasing approach to the construction of the complex and convoluted interchange and so it cannot maintain that it has <i>"Redesigned Lower Thames Crossing junctions...to reduce and, in some cases, remove the need for traffic management measures."</i> The construction of the A13 interchange would be an extremely complex process and will involve substantive disruption, delays, temporary traffic management and phasing or works. It is therefore the Council's opinion that the statement made seeks to underplay the effects and impacts that would be experienced during construction. The Council does not understand how the design of the interchange has been changed to allow HE to make its claim and requests that HE expands on this assertion.</p>
Construction logistics (pg. 68)	<p>a. The statement that a combination of "multimodal transport" would be used during the construction of the project does not align with the current oMHP which largely dismisses the use of non-road based transport for materials plant and equipment. The Construction Update is again misleading and not aligned to other documents.</p> <p>b. oMHP – see comments above regarding use of marine transport and the apparent dismissal of rail transport within the currently proposed and weak OMHP, on which the Council is providing a separate response and expressing its concerns about the absence of depth and detail.</p> <p>c. CLPs – The commitment by HE to the preparation of a CLP by the contractors is welcomed. See comments above regarding CLPs which the Council believe should be a control document and must be a critical early deliverable by the contractor. Preparation of a CLP should be first in the list of practices to be deployed. The CLP set sets out the practices, modes of transport and technologies that the contractor will deploy (such as those described in this list) to reduce impact on the road network, reduce environmental impact, reduce road risks, congestion and cost.</p>

Relevant Section in the Construction Update		The Council's Comments
		<p>d. This section implies that CLOCS and FORS are simply about reducing risks to vulnerable road users and perhaps suggests HE does not fully understand the aims of CLOCS and FORS. Committing to contractors meeting these standards is welcomed but HE needs to recognise that the mission and goals of CLOCS /FORS is wider than promoting practices simply reduce vulnerable road user risks. CLOCS and FORS both aim to reduce construction logistics/fleet impacts on community safety in its widest sense (zero collisions, better maintained vehicles; better trained drivers and more aware of the impact of their industry on the environment; improved air quality and reduced emissions, fewer and better managed vehicle movements, reduced reputational risk).</p> <p>e. The FORS and CLOCS initiatives must reach much wider than the contractors and their fleet, the initiatives must apply to the Client's / HE's fleet; to sub-contractors and all hauliers (including those being further sub-contracted). All documents need to align on this point.</p>
	Access routes and haul roads (pg. 69-70)	<p>a. States that some compounds connect directly to the SRN, such as M25 and A2. Specify which compounds please.</p> <p>b. While from a Public Health perspective we support the use of haul routes to reduce disruption and impact on local road users, HE still needs to consider the impact of HGV movements on these local routes in terms of increases in poor air quality and noise as well as cumulative effects.</p>
2.9	Waste management (pg. 70-71)	<p>a. Site Waste Management Plan (oSWMP) – see Council's separate comments for the specific document regarding the lack of specific clarity and detail.</p> <p>b. HE should provide detail on the mechanisms for dealing with rejected materials such as concrete which fails compliance checks and cast segments which do not comply with standards or are damaged. These are typically overlooked but can be significant quanta of material. If Sprayed Concrete Lining is to be used, the 50% overspray would need to be handled, and most likely disposed of off-site.</p> <p>c. oMHP – see Council's separate comments regarding lack of commitment to use of marine and rail transport.</p> <p>d. Comments have been made on the Outline Site Waste Management Plan (OSWMP) including lack of clarity on how suitable for re-use has been defined/decided and no obvious waste classification exercise.</p>
	Lower Thames Crossing and the waste hierarchy (pg. 71-72)	<p>a. HE states at page 73 that contractors will be able to demonstrate that aggregate from secondary uses or recycled is not suitable for the Project. The Contractors should be required to demonstrate why the use of that material is not appropriate and why it had failed to use that material. It is not sufficient for contractors to be permitted to simply stated that material reuse is not feasible.</p>

Relevant Section in the Construction Update		The Council's Comments
		b. HE states that <i>"around 23 million tonnes would be reused on site"</i> . It does not state what this 23 million tonnes is and whether that is a commitment or a statement.
	Table 2-5 Construction waste eliminated through project design changes (pg. 72-73)	HE states the reuse of excavated material from the tunnels for reuse within the Order Limits as 10,400,000 cubic metres. Is this to be a commitment to which the appointed contractors will have to adhere? It should be stated within the control documents as a commitment and not just an aspiration. The metrics on that should then be reported to the stakeholders and the Secretary of State.
	Northern tunnel entrance and excavated material (pg. 73)	a. Will there be an Environmental Permit for the operations proposed on Shed Marsh? b. Where is the definition of what is suitable for re-use following recovery? c. Given the identified presence of asbestos in the Made Ground/landfill waste is it intended that this material be re-used?
2.10	Working hours (pg. 74)	See the Council's separate response to the CoCP and REAC – particularly in relation to population and human health matters.
2.11	Monitoring (pg. 74)	a. See comments above regarding monitoring b. It is unclear within the oTMPfc and the construction update as to what road network impact monitoring is proposed before and during the construction period. Monitoring will be required to ensure impacts of the construction logistics and traffic management required by the scheme on the road network are understood, being actively managed and impacts on local communities are being mitigated. The oTMPfc proposes a monitoring report but the scope of monitoring proposed is not clear, no monitoring scheme or KPIs are provided in any detail. Monitoring construction logistics activities is a requirement of the CLOCS and this requirement should inform HE's monitoring scheme throughout the construction period. The need for proper and strong governance of the contractors' Traffic Management Plans and Construction Logistics Plans is covered in separate responses by the Council. c. This Council would have expected to see any monitoring during construction and once the road has opened to form part of a much wider monitoring and evaluation plan for the scheme to demonstrate the scheme outcomes and impacts in a much wider sense considering a range of socio, economic and environmental issues. This does not seem to be the case from the documents presented for consultation.
2.12	Worker accommodation	a. See the Council's response to the CoCP– particularly in relation to population and human health matters.

Relevant Section in the Construction Update		The Council's Comments
	(pg. 75)	<p>b. In paragraph 5.6.5 of the original CoCP we raised the question “What will be the impact on demand for health and other services from construction residing in local areas within Thurrock? This has not been adequately addressed in the ES, HEqIA and CoCP.” In the updated CoCP (June 2021) Paragraph 4.3.4 (f) states the following ‘Construction workforce - in its travel to and from work and in its use of temporary accommodation.’ This is in relation to the coordination responsibilities of the Joint Operations Forum (JOF). As noted there is still no reference to the monitoring or impact of the construction workforce on demand and access to health and other services and this issue remains outstanding. We would expect this monitoring to encompass monitoring of the demand and access to local health and social care and other services and would ask that this is included by HE. This fits within the worker accommodation section of the construction update, where there is mention that Highways England's assessment of local accommodation concludes that there is sufficient capacity through a combination of rented properties, visitor accommodation, such as hotels and owner-occupied homes. As mentioned, this assessment and monitoring should examine impact on local services and how this may affect access to health and other services, especially given that Thurrock is one of the most under-doctored areas in the country.</p>
<b>Chapter 4: Section B – Tunnels</b>		
4.1	Overview (pg. 102)	Should identify the potential need for improvement and/ or treatment to address the ground conditions.
4.2	Section B tunnels construction works (pg. 103-105)	<p>a. Tunnelling and Tunnel Fit Out – Add further information about tunnel lining and preparation of tunnel lining segments (on-site).</p> <p>b. Figure 1-1 show tunnel compound access points.</p> <p>c. Figure 1-1 show where concrete batching plant will be sited and tunnel segments will be cast.</p>
	Table 4-1 Section B construction compounds (pg. 107-108)	<p>Table 4-1 To help understand scale of construction logistics / site impacts these tables should also indicate:</p> <p>a. Programmed time period.</p> <p>b. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel).</p> <p>c. Vehicle type/Mix.</p> <p>d. Number and location of access points.</p>



Relevant Section in the Construction Update		The Council's Comments
	Description (pg. 109)	<ul style="list-style-type: none"> <li>a. Figure 1-3- show main compound access points.</li> <li>b. Figure 1-4 – provides little detail on the proposed internal layout of the site and how all the space will be utilised. Where will concrete batching take place? Where will car parking be and how much space is proposed? Where will tunnel segments be manufacture and stored? Where will office space / sleeping accommodation be provided and how much space will this occupy?</li> <li>c. This further detail is required to help understand why and how the scale of site proposed (270ha) has been established and also to understand site impacts and the mechanisms for workforce and materials movement.</li> <li>d. The indication of a parking area to the northern edge of the compound indicates that workforce access will be focused on the Station Road corridor from Linford and East Tilbury. This is not borne out within the Construction modelling and does not sit well with the aspiration to maximise access by non-car modes, where the main focus should be walking, cycling and public transport use from the west of the compound and that the Station Road approach is not suitable for high numbers of car and van movements. This evidences the shallowness of HE's commitments to sustainable transport and the weakness of the FCTP document.</li> <li>e. The CoCP states that walking and cycling to compounds will only be supported by HE where that occurs along routes which are lit streets. This rules out most of the access corridors to the compounds and shows that HE will not actively support walking and cycling to the work compounds.</li> <li>f. The poor quality of this image and the incorrect use of "Station Road" label as the west approach to the North Portal compound demonstrates the absence of refinement of the information provided by HE.</li> </ul>
	Northern Tunnel Entrance Compound (pg. 109-111)	See comments on 'Description' immediately above.
	Access to site (pg. 111-112)	<ul style="list-style-type: none"> <li>a. States that equipment and materials would arrive via Port of Tilbury and PoT2 and that some would arrive using SRN and a new dedicated access route. The Council is concerned that insufficient work has been undertaken to enable HE to make firm commitments as to the type and amount of equipment and material that can be transported by marine transport and via PoT and PoT2. At present whilst contractors are apparently encouraged to investigate this further as part of their MHPs and TMPs there is no firm commitment to do so and contractors will opt for the easiest and cheapest option. Maximising use of marine transport will help reduce impacts on the road network and local communities during the construction period</li> </ul>

Relevant Section in the Construction Update		The Council's Comments
		<p>and help reduce the schemes environmental and carbon impacts. Minimising the increase in HGV movements should minimise the impacts on road safety by reducing potential for road accidents and deaths. The balance between road and marine transportation should not be entirely about cost or convenience, it must reflect safety, environmental effects and community impacts. HE has to commit to incentivising its contractors to adopt the most sustainable methods of transport for materials and equipment.</p> <p>b. The document refers to a “dedicated road” built from Station Road. Is this road to be within the Order Limits and also which route is it to be served by i.e. Station Road from the east or through the Port of Tilbury from the east?</p> <p>c. What restrictions are there to be on the number, sized and time period for using Station Road to access the North Portal compound. This corridor is not suitable for access and it should not be left undefined.</p>
	Materials handling (pg. 113)	<p>a. See Council's separate comments on oMHP and lack of commitment to use of marine transport to reduce road network impacts.</p> <p>b. It is noted that concrete will be batched on site and also tunnel segments cast on site. How will concrete aggregate be delivered to the site for preparation/batching?</p>
	On-site haul routes for the Northern Tunnel Entrance Compound (pg. 113)	Identify the need for EA liaison to ensure the design does not adversely affect the landfill cap.
	Site-specific worker accommodation (pg. 116)	See comments above regarding providing more detail on the proposed internal layout of the northern tunnel compound site.
	Site drainage, construction and drainage outfalls (pg. 116-126)	We assume that EA will comment / secure appropriate design controls including preventing infiltration.
4.7	Launch structure and approach ramp	a. Please provide further information on the volumes of materials to be excavated (as landfill waste and natural ground) for the launch structure.

Relevant Section in the Construction Update		The Council's Comments
	(pg. 127)	b. Please provide clarity as to whether all this material is proposed to be retained on site for re-use.
4.8	Tunnelling and fit out (pg. 128)	a. States that 'the internal road deck would be installed as large precast units within the tunnel' and that 'due to their size and weight, these units are <i>likely</i> to be produced onsite'. At this stage of the project the Council would expect HE would be able to confirm whether this will be the case and commit the contractor to doing so to reduce the need for additional construction logistics/lorry movements. b. Further information should be provided on the proposed tunnel lining process for the main tunnels
4.9	Earthworks and landscaping (pg. 129)	See comments made earlier in regard to operation of a treatment hub and definition of what is considered suitable for re-use.
4.10	Testing and commissioning (pg. 131)	How will this process be managed at locations where the scheme interfaces with third party assets, including those for which the Council is responsible? How will the Council be involved in this testing and commissioning process? Further information is required from HE.
<b>Chapter 5: Section C – North of the River Thames 1</b>		
5.2	Timeline (pg. 134-135)	a. Figure 1-1 – programme duplicates in Figure 1-2. b. It is difficult to understand what the 'lower', 'medium' and 'higher' levels of activity actually translate to in terms of overall HGV movements, workforce travel movements, construction traffic flow on the network, amount of TM on the network. HE should be presenting this information in a more meaningful way so that local stakeholders, including the Council and communities can visualise and understand the scale and scope of local impacts.
	Haul roads (pg. 137-138)	Muckingford Road - What measures are to be put in place to protect vulnerable users, particularly those accessing the recreation and sports ground on this road? What measures are proposed during peak periods of activity at the sports pitches?
	Construction compound set-up (pg. 138-140)	Figure 1-3 – also show compound access points on this plan.

Relevant Section in the Construction Update		The Council's Comments
	Station Road Compound (pg. 141-142)	To help understand scale of construction logistics / site impacts at each compound this section should also indicate: a. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). b. Vehicle type/Mix.
	Brentwood Road Compound (pg. 143-144)	To help understand scale of construction logistics / site impacts at each compound this section should also indicate: a. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). b. Vehicle type/Mix.
	Stanford Road Compound (pg. 145-146)	To help understand scale of construction logistics / site impacts at each compound this section should also indicate: a. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). b. Vehicle type/Mix.
	Long Lane Compound (pg. 147-148)	a. It is not clear from the description as to why this compound needs to be split over two sites. Further information is required to explain why this approach has been taken. b. To help understand scale of construction logistics / site impacts at each compound this section should also indicate: i. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). ii. Vehicle type/Mix.
	Stifford Clays Road Compound West (pg. 149-150)	To help understand scale of construction logistics / site impacts at each compound this section should also indicate: a. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). b. Vehicle type/Mix.

Relevant Section in the Construction Update		The Council's Comments
	Stifford Clays Road Compound East (pg. 152-153)	To help understand scale of construction logistics / site impacts at each compound this section should also indicate: a. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). b. Vehicle type/Mix.
5.4	Utilities (pg. 154)	Little specific information is given in relation to these major utilities works. Further information is required in relation to the scope of work, its likely impacts and any proposed traffic management / other mitigations measures that would be needed to support their delivery.
	Table 5-1 Section C Utility Logistics Hubs (pg. 157)	Table 5-1 To help understand scale of construction logistics / site impacts these tables should also indicate: a. Programmed time period. b. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). c. Vehicle type/Mix. d. Number and location of access points.
	Diversion of National Grid power line at Tilbury to Linford (pg. 158)	Given the scale of the works described there is little specific information given in relation to these major utilities works within this update. Further drawings and information are required by the Council and other stakeholders in relation to the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community. If this information is provided elsewhere in other documents this needs to be clearly stated. These matters must be subject to effective public consultation, which thus far they have not been.
	Diversion of National Grid power lines from Chadwell St Mary to Stifford Clays Road (pg. 158)	Given the scale of the works described there is little specific information given in relation to these major utilities works within this update. Further drawings and information are required by the Council and other stakeholders in relation to the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community. If this information is provided elsewhere in other documents this needs to be clearly stated. These matters must be subject to effective public consultation, which thus far they have not been.

Relevant Section in the Construction Update		The Council's Comments
	UKPN proposals (pg. 159)	See comment above re. National Grid.
	Diversion of Cadent high-pressure gas network (pg. 159)	See comment above re. National Grid.
	Diversion of sewers and water mains (pg. 160)	See comment above re. National Grid.
	Diversion of telecommunications networks (pg. 160)	See comment above re. National Grid.
5.5	Tilbury Viaduct (zone 1) (pg. 160)	Given the scale of the works described there is little specific information given in relation to these viaduct works within this update. Further site specific drawings and information are required by the Council and other stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community. Reference is made to some potential generic construction methodologies described earlier in the document, but site specific information is required to enable the Council and others to understand the impacts. If this information is provided elsewhere in other documents this needs to be clearly stated. These matters must be subject to effective public consultation, which thus far they have not been.
	Introduction (pg. 160)	See comment above.
	Timing (pg. 160)	See comment above.

Relevant Section in the Construction Update		The Council's Comments
	Description (pg. 160)	See comment above.
5.6	Chadwell St Mary link (zone 2) (pg. 161)	Given the scale of the works described there is little specific information given in relation to these viaduct works within this update. Further site specific drawings and information are required by the Council and other stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community. Reference is made to some potential generic construction methodologies described earlier in the document, but site specific information is required to enable the Council and others to understand the impacts. If this information is provided elsewhere in other documents this needs to be clearly stated. These matters must be subject to effective public consultation, which thus far they have not been.
	Introduction (pg. 161)	See comment above.
	Timing (pg. 161)	See comment above.
	Description (pg. 161)	See comment above.
	Main route, Tilbury Viaduct to south of the A13 (pg. 161)	See comment above.
	Bridge construction (pg. 161)	See comment above.
	Muckingford Road bridge (pg. 161-162)	See comment above regarding further information/designs required. The Council would like to see further detail on the provision being made for walkers, cyclists and horse riders during the works and once completed.

Relevant Section in the Construction Update	The Council's Comments
Brentwood Road bridge (pg. 162)	See comment above regarding further information/designs required. The Council would like to see further detail on the provision being made for walkers, cyclists and horse riders during the works and once completed.
Hoford Road bridge (pg. 162)	See comment above regarding further information/designs required. The Council would like to see further detail on the provision being made for walkers, cyclists and horse riders during the works and once completed.
Rectory Road (pg. 164)	<ul style="list-style-type: none"> <li>a. See Council's separate comments on oTMPfc.</li> <li>b. The Council is particularly concerned about the impacts of these works and the closure of Rectory Road over an extended period of time (12 months) and its potential impacts, particularly on Orsett Village. What mitigation is proposed for those communities affected by these long term closures?</li> <li>c. Given the scale of the works described there is little specific information given in relation to these works within this update. Further site specific drawings and information are required by the Council and other stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community. Reference is made to some potential generic bridge construction methodologies described earlier in the document, but site specific information is required to enable the Council and others to understand the impacts. If this information is provided elsewhere in other documents this needs to be clearly stated. These matters must be subject to effective public consultation, which thus far they have not been.</li> <li>d. The Council would like to see further detail on the provision being made for walkers and cyclists during the works and once completed.</li> <li>e. What diversions would be put in place for all road users during the duration of works?</li> <li>f. How will property access be provided?</li> </ul>
A1013 (Stanford Road) realignment and tie-in structures (pg. 164)	See Council's separate comments on oTMPfc.
Orsett Heath Viaduct	Given the scale of the works described there is little specific information given in relation to these viaduct works within this update. Further site specific drawings and information are required by the Council and other



Relevant Section in the Construction Update	The Council's Comments
(pg. 165)	<p>stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community. Reference is made to some potential generic construction methodologies described earlier in the document, but site specific information is required to enable the Council and others to understand the impacts. If this information is provided elsewhere in other documents this needs to be clearly stated. These matters must be subject to effective public consultation, which thus far they have not been.</p>
Baker Street (pg. 165)	<ul style="list-style-type: none"> <li>a. The Council is particularly concerned about the impacts of these works and the closure of Baker Street over an extended period of time and its potential impacts, particularly on Orsett Village. What mitigation is proposed for those communities affected by these long term closures?</li> <li>b. Given the scale of the works described there is little specific information given in relation to these works within this update. Further site specific drawings and information are required by the Council and other stakeholders in relation to the final schemes design and also the scope, construction methodology, working areas, programme during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community. Reference is made to some potential generic bridge construction methodologies described earlier in the document, but site specific information is required to enable the Council and others to understand the impacts. If this information is provided elsewhere in other documents this needs to be clearly stated. These matters must be subject to effective public consultation, which thus far they have not been.</li> <li>c. The Council would like to see further detail on the provision being made for walkers and cyclists during the works and once completed.</li> <li>d. What diversions would be put in place for all road users during the duration of works?</li> <li>e. How will property access be provided?</li> </ul>
Realignment of Stifford Clays Road and bridge construction (pg. 166)	<p>See comment above regarding further information/designs required. The Council would like to see further detail on the provision being made for walkers and cyclists during the works and once completed. These matters must be subject to effective public consultation, which thus far they have not been.</p>

Relevant Section in the Construction Update		The Council's Comments
	Realignment of Green Lane and bridge construction (pg. 166)	See comment above regarding further information/designs required. The Council would like to see further detail on the provision being made for walkers and cyclists during the works and once completed. These matters must be subject to effective public consultation, which thus far they have not been.
5.8	Testing and commissioning (pg. 167)	How will this process be managed at locations where the scheme interfaces with third party assets, including those for which the Council is responsible? How will the Council be involved in this testing and commissioning process? Further information is required from HE.
	Introduction (pg. 167)	See comments above.
	Timing (pg. 167)	See comments above.
	Description (pg. 167)	See comments above.
<b>Chapter 6: Section D – North of the River</b>		
6.2	Timeline (pg. 170)	<ul style="list-style-type: none"> <li>a. Figure 1-2 – cannot read/blurred.</li> <li>b. It is difficult to understand what the 'lower', 'medium' and 'higher' levels of activity actually translate to in terms of overall HGV movements, workforce travel movements, construction traffic flow on the network, amount of TM on the network. HE should be presenting this information in a more meaningful way so that local stakeholders, including the Council and communities can visualise and understand the scale and scope of local impacts.</li> </ul>
	Archaeological investigations (pg. 172)	This is very high level containing little information for the public. Considering the amount of work put into the cultural heritage assessment this is disappointing and provides the reader with little information. No information on the assessment of historic buildings. Within this section the road will result in the complete loss of a nationally designated Scheduled Monument and three grade II listed buildings at Orsett. There is no information on the mitigation proposed.

Relevant Section in the Construction Update		The Council's Comments
	Construction compound set-up (pg. 174-175)	Figure 1-3 – show compound access/entrance points on plan.
	Mardyke Compound (pg. 176-177)	To help understand scale of construction logistics / site impacts at each compound this section should also indicate: a. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). b. Vehicle type/Mix.
	Medebridge Compound (pg. 178-179)	To help understand scale of construction logistics / site impacts at each compound this section should also indicate: a. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). b. Vehicle type/Mix.
	M25 Compound (pg. 180-181)	a. It is not clear from the description as to why this compound needs to be split over two sites. Further information is required to explain why this approach has been taken. b. To help understand scale of construction logistics / site impacts at each compound this section should also indicate: i. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). ii. Vehicle type/Mix.
	Ockendon Road Compound (pg. 182-183)	To help understand scale of construction logistics / site impacts at each compound this section should also indicate: a. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). b. Vehicle type/Mix.

Relevant Section in the Construction Update	The Council's Comments
Warley Street Compound (pg. 184-185)	To help understand scale of construction logistics / site impacts at each compound this section should also indicate: a. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). b. Vehicle type/Mix.
Table 6-1 Section D Utility Logistics Hubs (pg. 188)	Table 6-1 To help understand scale of construction logistics / site impacts these tables should also indicate: a. Programmed time period. b. Average daily / Peak vehicle movements associated with each site (Construction Logistics / Workforce Travel). c. Vehicle type/Mix. d. Number and location of access points.
Diversion of National Grid power lines at the Mardyke (pg. 189)	Given the scale of the works described there is little specific information given in relation to these major utilities works within this update. Further drawings and information are required by the Council and other stakeholders in relation to the scope and area/s of work during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community. If this information is provided elsewhere in other documents this needs to be clearly stated. These matters must be subject to effective public consultation, which thus far they have not been.
UK Power Networks (UKPN) proposals (pg. 189)	See comment above re. National Grid.
Diversion of Cadent gas networks (pg. 189)	See comment above re. National Grid.
Diversion of foul sewers and water mains (pg. 189)	See comment above re. National Grid.

Relevant Section in the Construction Update		The Council's Comments
	Diversion of telecommunications networks (pg. 190)	See comment above re. National Grid.
6.5	Ockendon link (zone 1) (pg. 190)	Given the scale of the works described there is little specific information given in relation to these viaduct works within this update. Further drawings and information are required by the Council and other stakeholders in relation to the final schemes design and also the scope, construction methodology and area/s of work during construction and its likely impacts including associated construction logistics, proposed traffic management and other mitigations measures that would be needed to support delivery and minimise impacts on the local community. If this information is provided elsewhere in other documents this needs to be clearly stated. These matters must be subject to effective public consultation, which thus far they have not been.
	Introduction (pg. 190)	See comments above.
	Timing (pg. 190)	See comments above.
	Description (pg. 190)	See comments above.
	Construction of the Mardyke Viaducts and embankments (pg. 190-191)	See comments above.
	Construction of North Road bridge (pg. 191)	See comment above regarding further information/designs required. The Council would like to see further detail on the provision being made for walkers, cyclists and horse riders during the works and once completed.

Relevant Section in the Construction Update		The Council's Comments
	Proposed Ockendon Road bridge structure (pg. 193)	Diversion via Dennis Road – further information should be provided on the expected level of traffic forecast to use this diversion.
6.8	Testing and commissioning (pg. 196)	See Council's comments above on Testing and commissioning.
<b>Chapter 7: Project-wide impacts</b>		
	Building the Lower Thames Crossing and the impacts on the local road network (pg. 198-200)	<ul style="list-style-type: none"> <li>a. See Council's separate comments on oTMPfc, oMHP and FCTP provided separately</li> <li>b. Construction Traffic Modelling / Impacts - see Council's report which has been issued to HE: 'Thurrock Cordon Model Construction Modelling Review' which provides a high-level review of the impact of the 11 construction phases (throughout the development of the Lower Thames Crossing as set out within Chapter 8 of the LTC DCO Transport Assessment) on Thurrock's highway network, providing an indication of the forecast impact arising from the traffic arriving and departing at the construction compounds, as well as the temporary diversions and road closures during the construction period. This report raises a series of concerns the Council has regarding high volumes of construction traffic at a wide range of locations on the local Thurrock Road network, including HGVs/lorries and LGVs/vans. It identifies the need for further detailed assessment where there is significant impact and for further details from HE on the mitigation proposed.</li> <li>c. Construction Traffic Modelling - No updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures. We consider that HE must provide, and consult upon, this updated traffic modelling.</li> <li>d. Whilst this section highlights a range of good intentions and proposals (which are welcomed) to 'reduce use of the local road network by vehicles accessing compounds' ; 'minimise the volume of earth that has to be moved away from or into construction locations' and 'reduce the number of workforce cars on the road network'. However, the Council has a number of concerns that have been identified above particularly in relation to the control plan documents (1.5) and construction logistics (2.8). Some key points are noted/re-iterated below.</li> </ul>

Relevant Section in the Construction Update	The Council's Comments
	<p>e. CLPs - The importance of CLPs is not recognised in this section. CLPs must set out the practices, modes of transport and technologies that the contractor will deploy and will be critical in reducing impacts on the road network, environmental impacts, reduce road risks, congestion and cost.</p> <p>f. Monitoring Construction Impacts - It is unclear within the oTMPfc and the construction update as to what road network impact monitoring is proposed before and during the construction period. Monitoring will be required to ensure impacts of the construction logistics, workforce travel and traffic management required by the scheme on the road network are understood, being actively managed/enforced and impacts on local communities are being mitigated. HE proposes through the oTMPfc a monitoring report (and the FTP proposes monitoring and adjustment) but the scope of monitoring proposed is not clear, no monitoring scheme or KPIs are provided in any detail. These monitoring requirements must reflect all vehicles, including vans/LGVs, visiting the compounds and not just lorries or heavy plant and equipment.</p> <p>g. Marine Transport - The Council is concerned that insufficient work has been undertaken to enable HE to make firm commitments as to the type and amount of material that can be transported by marine transport. At present whilst contractors are encouraged to investigate this further as part of their MHPs and TMPs there is no firm commitment to do so. Maximising use of marine transport will help reduce impacts on the road network and local communities during the construction period and help reduce the schemes environmental and carbon impacts. HE need to take active steps to investigate these matters now and consult upon their intentions once that investigation has been completed.</p> <p>h. Impacts on Bus Networks – Some increases in bus journey times during the construction period are acknowledged here and in the ward impact summaries. The Council is concerned that there is insufficient recognition here and throughout HE's consultation material regarding impacts on the local bus network during the construction period and in particular how this will be monitored and what mitigation measures will be taken to reduce impacts on operators and importantly on bus passengers. Simply engaging with operators, diverting services and communication of planned changes to users will not mitigate road network impacts that are likely to significantly increase bus journey times and make them more unreliable. To maintain service levels for passengers whilst the construction work take place will require close engagement with bus operators and local authorities in planning traffic management. Service levels on some routes may need to be enhanced to maintain service frequencies and reliability. HE should be indicating a commitment to mitigating impacts on the local bus networks and funding made available.</p> <p>i. Impacts on Bus Networks – re comment above this will have knock on impacts to the communities, equalities and health. Those who do not own a car could be significantly impacted here. These tend to be from lower income groups who experience inequalities in health outcomes. These groups could be therefore</p>

Relevant Section in the Construction Update		The Council's Comments
		<p>disproportionately affected if they have routes to their social networks, health services, food retail etc affected.</p> <p>j. HE has presented a Framework Construction Travel Plan (FCTP) which is proposed to provide a basis from which contractors prepare detailed workforce travel plans and a structure by which to review, monitor and enforce compliance. The FCTP should provide stretch targets for the contractors to minimise the effects of work force travelling by private vehicles. In a separate response on the FCTP (set out in Appendix A), the Council has raised its concerns on the lack of adequate FCTP provisions and targets and the continued reliance on private transport by workers to access the compounds. This concern is substantiated where HE recognises that the 'impact of the presence of staff cars on the highway network would be greatest in the morning peak period....'. This impact should be mitigate by HE and its contractors and this should be required through the FCTP and the subsequent contractors Travel Plans and then evidenced through monitoring and rectified where targets are not met.</p> <p>k. Environmental impacts are not summarised in much detail. All the plans of AQ and noise impacts are based on out-of-date assessments which are currently being updated.</p>
	Our environmental assessment of construction (pg. 200-201)	<p>a. The Environmental Impact Assessment (EIA) does not include a transport chapter and there does not appear to be an assessment of the usual transport environmental criteria, such as: driver delay fear intimidation, severance, pedestrian and cyclist delay and amenity; safety and accidents; hazardous loads, etc. There are some significant increases in traffic during construction (and operation), which may cause some adverse impacts on pedestrians, including school children and elderly using the adjacent footways or crossing the routes, for example. Mitigation has therefore not been identified as a result of not completing this assessment. These matters must be subject to effective public consultation, which thus far they have not been.</p> <p>b. There is no Population and Human Health Chapter listed.</p> <p>c. There is no assessment of the cultural heritage identified in this section, seems largely to have been missed from this consultation.</p>
7.2	Other documents (pg. 202-203)	There is no mention of the Health and Equalities Impact Assessment.
7.4	Our approach to environmental mitigation	Reference should be made to a commitment to CLOCS/FORS which incorporates best practices and standards that help reduce environmental impacts.



Relevant Section in the Construction Update	The Council's Comments
(pg. 205-206)	
Air quality (pg. 207-221)	<ul style="list-style-type: none"> <li>a. This section notes that changes in traffic flow during construction would be evaluated.</li> <li>b. See Council comments above about the lack of clarity from HE on the overall approach to monitoring during construction to inform a number of key control, management and governance activities e.g. construction logistics plans, traffic management plans, workforce travel plans, environmental management that will all help manage and mitigate impacts on local communities.</li> <li>c. The figures presented are only changes to traffic movements and HGV movements and offer no information on changes in air quality as a result of the construction itself only the traffic movements. It is not providing the total picture on air quality changes during construction and relies on the temporary nature of the changes to categorise impacts as unlikely to be significant.</li> <li>d. A1089 and Fort Road changes a concern given the pre-existing health conditions presenting in Tilbury. The increases in A1089 predicted run alongside a number of early years and educational sites which line the route. There is also an AQMA (24) on Dock Road/Calcutta road which runs parallel to the A1089 and where there are a number of residential facilities.</li> <li>e. Although the air quality standards are currently met, due to the poor health outcomes of many of the communities within Thurrock that align to the LTC route, increases in air pollution can contribute to the widening of health inequalities within these already marginalised populations. Living with chronic disease increases the burden on all health and social care services and affects communities as a whole both economically and with the increase in isolation and poor mental health. This will also be impacted further by the development of other major infrastructure projects within the borough that will have a cumulative effect on all of these health-related factors.</li> </ul>
Noise and vibration (pg. 221)	<ul style="list-style-type: none"> <li>a. Changes in Noise shown along vehicle routes but is not showing the whole/total picture for noise changes as a result of construction.</li> <li>b. Should Whitecroft Care home, educational facilities along the A1089 and the West of Tilbury be a construction receptor for noise assessment locations?</li> <li>c. Concern re impact on Whitecroft Care home with the noise changes anticipated at Hornsby Lane.</li> <li>d. Concerns still regards to construction traffic impacts and mitigation options for this.</li> <li>e. Construction Noise and Vibration Assessment - currently only indicative impact predictions are available (as charted graphically in the Ward Impact Summaries) in respect of construction noise and these are based on an earlier versions of the project. The revised opening year and traffic management arrangements, together</li> </ul>

Relevant Section in the Construction Update		The Council's Comments
		<p>with a requirement for further modelling, mean that quantitative predictions may vary, possibly significantly and it is stated an update will not be available prior to the DCOv2 application (chapter 7.5 (page 201) – 'Recent updates to our environmental assessments').</p> <p>f. The council would request that quantitative construction noise impacts are made available prior to DCO submission to enable analysis, review and discussion, so as to determine appropriate mitigation.</p>
	Cultural heritage – archaeology (pg. 249-251)	<p>It is disappointing that this section fails to identify the loss of a nationally designated Scheduled monument and three listed buildings, these should be the headline factors. The impact on listed buildings is restricted to the Ward summaries (as defined by the side note) and not integrated into his section which should consider all of the cultural heritage. Similarly, it seems to regard the scheduled monument as being built heritage when in fact it is a Bronze Age and Iron Age settlement known from cropmarks. Overall, there seems to be a poor understanding of the cultural heritage throughout the submitted documents.</p>
	Geology and soils (pg. 251)	<p>a. locally important geological sites to the north of the Thames – please add that mitigation measures to protect these features are identified in REAC and identify whether or not these will prevent a permanent impact.</p> <p>b. Reinstatement of temporary land taken – please add that there are actions in the REAC for pre and post conditions surveys.</p> <p>c. Under Mitigation 'This information would help to inform the specific mitigations <b>including those required to address the adverse ground conditions (contamination and stability).</b></p> <p>d. This would allow our contractor to re-use <b>those soils that are chemically and physically suitable (including those following treatment)</b> elsewhere on the project.</p>
	Offsetting the loss of ancient woodland (pg. 254)	<p>The title for this section should be changed as it covers more than just offsetting the loss of ancient woodland.</p>
	Mitigation (pg. 259-260)	<p>a. Details provided within this section are generally inadequate but do reference REAC and use of general good practice. As a preference we would prefer to see this section enhanced to include reference to extensive use of Sustainable Drainage methods, Green Infrastructure etc. and the requirements outlined in the Essex SuDS Design Guide. This ties into our previous comments made about the overall LTC scheme being aspirational given the scale of development.</p>

Relevant Section in the Construction Update		The Council's Comments
		b. Maintenance of any proposed SuDS features that are utilised during the construction phase should be increased to account for additional siltation that might occur due to construction activities.
	Construction impacts (pg. 261)	<p>a. This section sets out GHG emissions associated with the operation – this needs to be included in the operation update.</p> <p>b. It is referenced that site clearance, such as the removal of vegetation, would result in losses of carbon sinks. Material and soil management practices should be implemented to minimise carbon sink losses, particularly where any areas will be reinstated post-construction.</p>
	Mitigation (pg. 262)	<p>a. “trees, shrubs and hedgerows planted as part of the landscape design would offset some of the GHG emissions” – it is noted that further work is needed to confirm wider tree planting and habitat creation in the Borough, and associated wider carbon sequestration.</p> <p>b. Comments are made in the REAC in relation to ensuring an ambitious approach to specific carbon reduction measures and targets for contractors – in relation to, for example, use of low carbon materials, and for machinery use etc.</p>
<b>Chapter 8: Visualisations of construction works</b>		
	(pg. 266)	Visualisations of operational scheme should be provided or signposted.

## 2.2 Summary and Recommendations

2.2.1 The construction update from HE provides further information in relation to:

- a. Project wide approaches to construction
- b. Works proposed and compound locations by geographical area (Sections A, B, C, D)
- c. Project wide impacts and approach to mitigation.

2.2.2 Key issues and recommendations identified above by the Council can be summarised as:

- a. **Control Plan and Control Documents** – It is not clear how the control plan and the multiple processes and activities set out within them will be managed, co-ordinated and governed by HE during the implementation process. Further clarity from HE is required.
- b. **Governance and Engagement** – At present multiple forums and groups are proposed throughout the consultation document – Joint Operations Forum (JOF), Traffic Management Forum, Travel Plan Liaison Group, Community Liaison Forums etc – but this currently appears disjointed and uncoordinated. The Council would expect (as with other major transport schemes e.g. Silvertown Tunnel) that HE establishes an overarching Implementation Group made up of representatives (at a senior executive level) of all the impacted local planning and highway authorities and the Department for Transport. HE should be required to consult with this implementation group on matters related to planning, constructing and operating the LTC scheme. *Further clarity from HE is required on proposed governance arrangements.*
- c. **Monitoring Road Network Impacts during Construction** - It is unclear within this and various other documents e.g. oTMPfc, FCTP as to what road network impact monitoring is proposed before and during the construction period. Monitoring will be required to ensure impacts of the construction logistics, workforce travel and traffic management schemes required on the road network are understood, being actively managed/enforced and impacts on local communities are being mitigated. The oTMPfc proposes a monitoring report but the scope of monitoring proposed is not clear, no monitoring scheme or KPIs are provided in any detail. The FTP suggests monitoring will take place. *Further clarity from HE is required on proposed construction monitoring arrangements.*
- d. **Wider Outcome Monitoring and Evaluation** – The monitoring that is proposed is very traffic orientated. This Council would have expected to see this road network impact work to form part of a much wider monitoring and evaluation plan for the scheme (including covering the construction period itself – see comments above) to demonstrate the scheme outcomes and impacts in a much wider sense considering a range of social, economic and environmental issues. *Further clarity from HE is required on proposed wider outcome monitoring arrangements.*
- e. **Materials Handling** - The Council is concerned that insufficient work has been undertaken to enable HE to make firm commitments as to the type and amount of material that can be transported by marine transport. At present whilst contractors are encouraged to investigate this further as part of their MHPs and TMPs there is no firm commitment to do so. Maximising use of marine transport will help reduce impacts on the road network and local communities during the construction period and help reduce the schemes environmental and carbon impacts. *A firmer commitment / target for use of marine transport should be made, and its impacts consulted upon, by HE*
- f. **Construction Logistics Plans (CLPs)** – the Code of Construction Practice (CoCP) includes a commitment to contractors producing a CLP and HE has also committed to contractors meeting best practice standards for Construction Logistics and Fleet Management as set out in CLOCS and FORS which is welcomed. This will require the production of a detailed CLP by contractors and notes their importance in planning, managing and monitoring construction logistics. *The Council believes the critical role and importance of the CLP needs to be highlighted further by HE and it should form a key control document.*

- g. **Major Utilities and Viaduct Works** – there are some very significant elements of work for which limited information is provided regarding the nature of works and likely impacts e.g. National Grid power lines, UKPN proposals, Tilbury Viaduct, Chadwell St Mary Link, Orsett Heath Viaduct. *Further details are requested by the Council.* These matters must be subject to effective public consultation, which thus far they have not been.
- h. **Construction Traffic Impacts** – the Council's report 'Thurrock Cordon Model Construction Modelling Review' provides a high-level review of the impact of the 11 construction phases (throughout the development of the Lower Thames Crossing as set out within Chapter 8 of the LTC DCO Transport Assessment) on Thurrock's highway network, providing an indication of the forecast impact arising from the traffic arriving and departing at the construction compounds, as well as the temporary diversions and road closures during the construction period. This report raises a series of concerns the Council has regarding high volumes of construction traffic at a wide range of locations on the local Thurrock Road network. It identifies the need for further detailed assessment where there is significant impact and for further details from HE on the mitigation proposed. *Construction Traffic Modelling - No updated construction traffic modelling has been issued alongside this consultation material. This is vital evidence that helps understand impacts on the road network and local communities and informs the development of appropriate mitigation measures.* This material must be provided to the Council before the current consultation can be said to have been effective. At present the Council has not been provided with sufficient information to properly understand the impacts of the project in this respect, and therefore the consultation has been legally defective.
- i. **Impacts on Bus Networks** – Some increases in bus journey times are acknowledged here and in the ward impact summaries. However, the Council is concerned that there is insufficient recognition here and throughout HE's consultation material regarding impacts on the local bus network during the construction period and in particular how this will be monitored and what mitigation measures will be taken to reduce impacts on operators and importantly on bus passengers. *HE should be indicating a greater commitment to mitigating impacts on the local bus networks and funding should be made available.*
- j. **Cultural Heritage** – In terms of cultural heritage, particularly buildings, the issue is that historic/listed buildings and conservation areas (including the three Grade II listed buildings being demolished) are not mentioned at all, so the solution is for HE to include reference to them.
- k. **Construction Noise and Vibration Assessment** - Currently only indicative impact predictions are available (as charted graphically in the Ward Impact Summaries) in respect of construction noise, and these are based on an earlier versions of the project. The revised opening year and traffic management arrangements, together with a requirement for further modelling, mean that quantitative predictions may vary, possibly significantly, and it is stated an update will not be available prior to DCO application (chapter 7.5 (page 201) - Recent updates to our environmental assessments). The council would request that quantitative construction noise impacts are made available prior to DCO submission as this is vital evidence that helps understand the impacts to enable analysis, review and discussion, so as to determine appropriate mitigation.
- l. **Noise and Air Quality Impacts** – The assessments for noise, air quality and dust have not been updated within the document. This then does not allow for the correct identification of impacts and the appropriate mitigation measures as relates to these environmental factors. Assessment for noise, air quality and dust should cover the whole of the 6 to 8 years of construction so as to aid understanding of the effects on communities and any changes to health inequalities over this time period.



## Lower Thames Crossing

Review of Operations Update

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of Operations Update

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**Date:** October 2021

	Name	Position	Signature	Date
<b>Prepared by:</b>	Various	-	-	August 2021
<b>Reviewed by:</b>	Adrian Neve	Director	AN	August 2021
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<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	-	AN	CS
B	05/10/2021	Issued to National Highways	-	CB	CB

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the assessment details for the Operations Update.
- 1.1.2 This document sets out the Council's comments on the proposed Operations Update and if there are any suitable opportunities to improve the proposals being put forward by HE and the associated infrastructure and mitigation.
- 1.1.3 The document follows the same structure as Operation Update and responds only to the sections relating to the north of the river.
- 1.1.4 The Key themes of concern to the Council are:
  - a. That the document seeks to downplay the effects the LTC will have on the operation of the local road network. This matter has been raised by the Council through many responses to information provided by HE and at many engagement meetings during the years building up to the aborted October 2020 DCO submission, as well as in the engagement period since its withdrawal. Substantive technical evidence has been provided by the Council to HE to demonstrate its concerns and responses on those concerns are still required.
  - b. HE is required to work towards a strategic network which provides for strong connections for walking cycling and public transport. It is the Council's opinion that the proposals do not provide a strong network for walking and cycling, and that the corridor hinders public transport connectivity within Thurrock and does not promote opportunities for cross river public transport connections.
  - c. In terms of cultural heritage, particularly buildings, the issue is that historic/listed buildings and conservation areas (including the three Grade II listed buildings being demolished) are not mentioned, so the solution is for HE to include reference to them. The Operations Update does not mention cultural heritage at all.

## 2 Review of Operations Update

### 2.1 Comments

Table 2.1: The Council's Comments on the Operations Update

Relevant Section in the Operations Update	The Council's Comments
<b>Chapter 1: Introduction</b>	
<b>Chapter 2: The new road and it's infrastructure</b>	
Leaving a positive legacy (pg.11)	<p>a. The statements made within this section of the Operations Update document are not borne out in the proposals being put forward. Building a road with no local connectivity should not be a mechanism to provide <i>"people more flexibility and choice regarding where they work, live and learn"</i>. A long distant strategic road with no local connections can only benefit long distance travel, which is contrary to national and international environmental aspirations around a more sustainable future. The route proposals do not <i>"maximise the potential benefits...to local communities"</i>, they do not connect communities or promote active travel, instead it provides severance and challenges to local movement.</p> <p>b. The Council has made many representations to HE on the severance effects of the LTC proposals and that opportunities for local connectivity are not being met, especially by public transport.</p>
Environmental design (pg.24)	Opportunities to achieve significant green infrastructure benefits have been restricted by the limited scope of mitigation measures. While legacy projects have been identified there is significant uncertainty about identifying appropriate funding to ensure mitigation and legacy complement each other. Throughout much of the scheme environmental mitigation has been dominated by false cuttings rather than more ambitious mitigation.
Improvements for walkers, cyclists and horse riders (pg.25-28)	<p>a. The wording in the Operations Update document is disingenuous (to the extent of rendering the consultation exercise ineffective and legally defective) where it is stated that HE has <i>"developed a programme of improvements for walkers, cyclists and horse riders that would connect local communities with green spaces and promote active travel choices"</i>. HE simply has not done this and the assertion to the contrary is misleading. WCH infrastructure improvements need to be an improvement and maximise the opportunities, not just reconnecting severed links. The</p>

Relevant Section in the Operations Update	The Council's Comments
	<p>reconnections are not forming part of a broader strategic improvement which would assist in alleviated local traffic impacts, environmental impacts and which would have a role in addressing the severance/accessibility (particularly for those who do not own a car or van) across the borough – these would be:</p> <ul style="list-style-type: none"> <li>▪ East – West link from Chadwell St Mary through to East Tilbury/Linford <i>and up to Stanford-Le-Hope</i>.</li> <li>▪ North – South link from North Ockendon/Upminster, <i>through Ockendon through to North Stifford</i>.</li> </ul> <p>b. If these were brought through in advance of the construction works, it would also assist with mitigation for the construction period impacts.</p> <p>c. The council is preparing a list of additional active travel enhancements that can be delivered directly as part of the mitigation or as part of the LTC legacy.</p> <p>d. A Sub Regional Study of walker, cycling and horse-riding was prepared; however, beyond necessary mitigation no funding has been made available to help implement it. The sub-regional study focussed largely on cycling, particularly for commuter use and is funded largely through Designated Funds.</p>
<b>Chapter 3.1: Changes since our last consultation</b>	
Proposed Order Limits (pg.33-36)	<p>a. Changes to the order limits are highlighted in the report. It has been highlighted by the LLFA previously that design discharge rates for existing ponds 13-001, 14-003 and 14-005 appear to be very high and further clarification should be provided on the methodology used to determine these. Should the design discharge rates, and therefore the storage volume/ basin geometry, need to be reviewed then this could have further implications on the order limits, as they may need to be reviewed.</p> <p>b. Concerns have been raised about the storage structures and their interaction with the existing groundwater table. A detailed Ground Investigation should be carried out on each site to determine the seasonal high ground water level and the storage structure should be designed so that there is suitable clearance to prevent loss of storage capacity. This is typically considered in detailed design of the scheme, but changes to storage structure geometry may have implications on the order limits so should be considered at the earliest possible stage.</p>
Map reference 7 (pg. 60)	<p>The change reduces impact on the Two Forts Way by requiring only a single vehicle crossing. A replacement access will be integrated into the design proposals for Tilbury Fields. This has a small benefit for NMU users. It is incorrect to state that all stakeholders expressed a desire to minimise works in the river, as most local authorities and PLA are strongly recommending more use of the river. HE should state in detail which stakeholders and what their comments were to understand the source of such a blanket statement.</p>

Relevant Section in the Operations Update	The Council's Comments
Map reference R (pg. 61)	The proposed larger culverts would help improve water flow which could improve flood alleviation around Tilbury.
Map reference 7 (pg. 63)	The removal of a jetty may be supported as it will lessen impacts within the river, in view of the fact that it may lessen the impact on the functionally linked habitat for the SPA, therefore it would lessen the ecological impacts (this is an issue currently with Tilbury FGP and Natural England).
Map reference 10 (pg. 63)	This corrects an earlier drafting error which showed part of the ecology area included within the order Limits. This correction was made at the request of Natural England and Thurrock Council.
Map reference 12 (pg. 68)	The changes would require vegetation to be removed on the west side of Buckingham Hill Lane. No length is given for this section.
Map reference J (pg. 69-70)	<ul style="list-style-type: none"> <li>a. HE states that an additional lane is required between LTC and the Orsett Cock interchange to address predicted congestion on that link. The commentary appears to suggest that the congestion was due to the allocation of the Freeport within Thurrock. What assumptions has HE taken on the assignment of traffic associated with the Freeport and if that is shown to be taken through the Orsett Cock interchange it would be destined for London Gateway / DP World which would have an impact on The Manorway junction. How is that impact being mitigated. HE clearly need to provide the data underlying their assertions in this respect so that the Council can review and interrogate it. Unless the Council has been given this opportunity, and been consulted on it, the current consultation exercise will be defective.</li> <li>b. The Council has raised concerns about the design proposals for the 2 lane link between LTC and Orsett Cock interchange, particularly reflecting the revised layout of the Orsett Cock interchange. The Council has not had the evidence it requires to indicate that the layout works and now the addition of a further lane only adds to the concerns that the Council has raised. This point is covered in a number of other representations to HE and within the Issues Log accompanying the Statement of Common Ground. HE clearly need to provide the data underlying their assertions in this respect so that the Council can review and interrogate it. Unless the Council has been given this opportunity, and been consulted on it, the current consultation exercise will be defective.</li> <li>c. HE must demonstrate to the Council what the implications of the additional lane are on the operation of the linkages to LTC and to the Orsett Cock interchange. HE must also demonstrate that the design of the affected link road is safe and viable.</li> </ul>

Relevant Section in the Operations Update	The Council's Comments
Map reference 14 (pg. 71)	The proposed changes have been discussed and agreed in principle with the Council.
Map reference 21 (pg. 76-77)	The proposed changes have been discussed and agreed in principle with the Council.
Map reference 25 (pg. 76-77)	The proposed changes have been discussed and agreed in principle with the Council.
Map reference 25 (pg. 76-78)	The Council has not seen these proposed amendments. It is unclear what the heights and locations of the bunds would be and therefore it is not possible to determine their visual effects or if they provide any adequate noise mitigation. This information must be provided to the Council for review.
<b>Chapter 3.2: Special category land</b>	
Tilbury Green (pg. 90)	The proposed changes have been discussed and agreed in principle with the Council.
Walton Common and Parsonage Common (pg. 91)	The proposed changes have been discussed and agreed in principle with the Council.
Ron Evans Memorial Field (pg.92)	The proposed changes have been discussed and agreed in principle with the Council.
Orsett Fen (pg.92)	The proposed changes have been discussed and agreed in principle with the Council.
Tilbury Green – common land (pg.95)	The proposed changes have been discussed and agreed in principle with the Council.

Relevant Section in the Operations Update	The Council's Comments
Ron Evans Memorial Field (pg. 96)	<ul style="list-style-type: none"> <li>a. What mitigation will be in place to address change in behaviours as a result of the operational environmental impacts of the scheme (i.e., noise and air quality)? To date there is replacement land which will be no less favourable and will be landscaped to match the existing field. It is not clear to what extent the quality of the public recreation site will be improved to ensure that changes in behaviour are mitigated for.</li> <li>b. The existing site is a Local Wildlife Site and used principally for informal access. The existing site is separated from Long Lane by arable farmland. The proposed changes provide an opportunity to create a better entrance from Long Lane and an improved connection to Blackshots Lane. It could be possible to improve the connection through the site. The site however will still need to be principally informal recreation to avoid further harming its ecological value.</li> <li>c. The proposed changes have been discussed and agreed in principle with the Council.</li> </ul>
Orsett Fen – common land (pg. 97)	<ul style="list-style-type: none"> <li>a. How will it be demonstrated that the replacement land at Orsett Fen is more advantageous (i.e. maximising the benefit)? Although there is replacement land greater in size than that acquired, this site will suffer from environmental impacts (e.g. visual, noise) which may lead to a change in human behaviour for exercise and recreation.</li> <li>b. The existing open access land has no public access other than the bridleway as it is arable farmland. It is unlikely that this will change significantly.</li> <li>c. The proposed changes have been discussed and agreed in principle with the Council.</li> </ul>
Section 38 (pg. 102)	The affected sites are considered above. This refers to the necessary legal process involving works to commons.
<b>Chapter 3.3: Private recreational facilities</b>	
Linford Allotments (pg. 104)	<ul style="list-style-type: none"> <li>a. Reduced amenity value of allotments arising from two rows of overhead power lines crossing the allotments, which may affect human behaviour and use of the allotment impacting on health and wellbeing.</li> <li>b. It is unclear what is proposed for this site. Reference is made to burying the utility corridor at depth so the site can continue to be used. Will this require excavations through the site or will utilities be bored? If excavated the works will significantly disrupt the soils and restrict what can be grown in the future. If utilities being buried will there still be overhead pylons?</li> </ul>
Orsett Park Royals Football Club pitches (pg. 104)	All of these sites will be used by local community for sport and recreation and so has the potential to impact on health and wellbeing of those using the facilities.

Relevant Section in the Operations Update	The Council's Comments
Orsett Golf Club (pg. 104)	All of these sites will be used by local community for sport and recreation and so has the potential to impact on health and wellbeing of those using the facilities.
Thurrock Rugby Football Club (pg. 104)	All of these sites will be used by local community for sport and recreation and so has the potential to impact on health and wellbeing of those using the facilities.
Mardyke Valley /North Road (pg. 104)	All of these sites will be used by local community for sport and recreation and so has the potential to impact on health and wellbeing of those using the facilities.
Grangewaters Outdoor Education Centre car park (pg. 104)	All of these sites will be used by local community for sport and recreation and so has the potential to impact on health and wellbeing of those using the facilities.
Top Meadow Golf Club (pg. 105)	All of these sites will be used by local community for sport and recreation and so has the potential to impact on health and wellbeing of those using the facilities.
<b>Chapter 3.4: New open space sites</b>	
Tilbury Fields (pg. 106-107)	<ul style="list-style-type: none"> <li>a. There was previous discussion on the installation of some public art here. To encourage and mitigate impacts on behavioural changes on the use of this land as a result of environmental impacts of the result, something like public art which has a connection to the area (for instance the aspects of historical significance which will be viewed from here and/or the links to maritime) to draw walkers and cyclists to actively use the area would be of value here, which is understood to be still under consideration by HE – please confirm.</li> <li>b. The proposed design has been subject to ongoing and continuing discussion with the Council and other stakeholders.</li> </ul>
<b>Chapter 4: Traffic impacts</b>	



Relevant Section in the Operations Update	The Council's Comments
Introduction (pg. 110-111)	<p>a. The updated modelling evidence, including Forecasting Report and Transport Assessment, has not be provided within the consultation, yet the consultation material appears to be based upon this. Without this updated evidence the Council cannot fully comment on the consultation documents. Unless the Council has been given this information, and been consulted on it, the current consultation exercise will be defective.</p> <p>b. Core comments as set out within the LTC Review of Transport Planning Evidence from Thurrock Council issued in March 2021 have informed the majority of the following comments, as indicated below, the concerns identified previously remain. The associated reference numbers have been included for easy reference against the comments made within the above document.</p>
The need for the Lower Thames Crossing after COVID-19 (pg. 112)	The peak hour traffic flows should be analysed as well as the daily traffic flows when considering whether traffic has returned to pre-covid levels.
The transport model (pg. 113)	<p>a. At the time of review of this documentation no updated supporting transport models have been provided alongside this consultation, therefore, the Council refers to the last submitted model review document issued to HE in June 2020 (LTC Consultation - Review the Effects of the LTC within Thurrock - Sup Con Modelling Review) as well as the local junction assessments report (LTC Consultation - Junction Assessment and Mitigation Analysis issued in October 2020) undertaken to identify possible mitigation at key areas within Thurrock. Unless the Council has been given this information, and been consulted on it, the current consultation exercise will be defective.</p> <p>b. HE must respond to these papers and the concerns raised within them relating to the effects on the local road network.</p>
Transport model guidance (pg. 113)	See 'Modelled hours' and 'Model calibration and validation'.
Modelled hours (pg. 114)	Ref 10.15 - The LTAM morning peak hour model is 07:00-08:00hrs, which we understand is the peak hour on the strategic network, but the local network morning peak hour is 08:00-09:00hrs. As a result, there are concerns that the impact on the local network is underestimated.

Relevant Section in the Operations Update	The Council's Comments
Model calibration and validation (pg. 114-115)	Ref 10.1 – No local road traffic counts (except on the A13) have been used to calibrate or validate the model. A comparison of the model flows compared to observed flows undertaken by Thurrock which shows that, in general, traffic flows are low on local roads in the base year model and in particular, low on: the A1013; links near Orsett Cock; on A1014 The Manorway; and A1089 near ASDA. The Council has consistently and repeatedly raised concerns at meetings and via representations that the impacts on the local roads and junctions are likely to be underestimated as a result of the lower level of traffic on the local roads. Detailed junction assessments should be carried out, in any case, at the key pressure points on the network, using accurate baseline traffic data, such as: Orsett Cock, The Manorway roundabout, ASDA roundabout, Daneholes roundabout and Marshfoot Road junction.
Traffic growth (pg. 116)	<ul style="list-style-type: none"> <li>a. Ref 10.5 - Concerns remain regarding the absence of any sensitivity testing for emerging Local Plan development.</li> <li>b. HE is not demonstrating that the proposals are facilitating the local growth agenda, as is required by the stated objectives of the LTC and through national policy.</li> </ul>
London Resort (pg. 117-118)	<ul style="list-style-type: none"> <li>a. Ref 10.23 - No evidence with the consultation that the impact arising from London Resort has been included within the current modelling work, although it has been proposed separately that sensitivity testing will be undertaken. Unless the Council has been given this information, and been consulted on it, the current consultation exercise will be defective.</li> <li>b. With the London Resort included, any available capacity is likely to be taken up on the existing A1089, and therefore it is likely mitigation at Asda roundabout will be even more necessary, as a result of the increased traffic from LTC. HE should consider the trip generation of London Resort into the forecast transport model and the suitable mitigation that would be delivered to address impacts.</li> <li>c. The Council has also raised concern with the proposed approach to testing London Resort, as by fixing the London Resort traffic, priority with regards to peak period capacity, will be given to London Resort.</li> <li>d. It is unlikely to be reasonable to expect the Port traffic and other traffic in the area to change time of travel, mode of travel or destination. The Tilbury area relies on a single access via the A1089. Businesses may not be able to operate successfully with their operations displaced to outside of the peak periods, particularly freight movements.</li> <li>e. It will be important to investigate any demand changes and justify whether it is reasonable/achievable for the success of the Tilbury area (or alternatively to fix the Tilbury area destinations).</li> </ul>
Forecasts with the Lower Thames Crossing (pg. 122)	<ul style="list-style-type: none"> <li>a. A number of concerns have previously been raised and remain of concern regarding the forecast modelling, including: <ul style="list-style-type: none"> <li>i. Rat-running on local roads and enforcement thereof (Ref 10.2/10.3)</li> </ul> </li> </ul>

Relevant Section in the Operations Update	The Council's Comments
	<ul style="list-style-type: none"> <li>ii. Impacts resulting from the scheme at ASDA/Tilbury Link Road (Ref 10.018); Daneholes Roundabout (Ref 10.19), and Orsett Village and Rectory Road (Ref 10.20) and Marshfoot Road junction with the eastern slip road from the A1089.</li> <li>b. Furthermore, no model forecast technical model note nor the Thurrock Cordon Models of the future years have been provided to the Council for review since the changes made to the network and zone loading locations.</li> </ul>
What the model predicts (pg. 122)	See comments in response to the 'Forecasts with the Lower Thames Crossing' section above.
Changes in flow (pg. 123-133)	<p>See comments in response to the 'Forecasts with the Lower Thames Crossing' section above.</p> <p>Please refer to Report titled <b>"Review of the Effects of the LTC within Thurrock: DCO Cordon Model Review", October 2020.</b></p> <p>The Council has the following concerns:</p> <ul style="list-style-type: none"> <li>a. Underestimation of base traffic flows, particularly at Orsett Cock, Manorway junction, A1013, A128/Rectory Road, and ASDA roundabout.</li> <li>b. Increases in traffic flows at Orsett Cock and Manorway junctions.</li> <li>c. Traffic flow increases on both the A13 and local roads including the A1014 The Manorway, London Road/Corringham Road, A1013 Stanford Road and A13/A176 junctions.</li> <li>d. Adjustments have been made to zone loading points and addition of new network has been included without any model validation undertaken, thus resulting in local changes in traffic routeing and rat running, specifically noted at Rectory Road, Orsett. This also leads to concerns over an increase in traffic through Orsett village.</li> <li>e. It is not known that as a result of the point above, whether traffic levels and therefore the delays at Orsett Cock are accurate representations of what could occur in the future with LTC in place.</li> <li>f. HGV bans have been redefined; however it is not known how new bans specifically related to port traffic would be enforced. There are no detailed proposals (Note: enforcement is already a challenge and LTC will increase the risk of HGVs using the routes).</li> <li>g. Risk of higher use of Orsett Cock roundabout (and potentially The Manorway junction) for u-turning from the LTC to A1089 than modelled due to quicker journey times (and potential growth in traffic arriving from south of the River Thames and inaccurate future growth locations).</li> </ul>

Relevant Section in the Operations Update	The Council's Comments
	<p>h. Risk of higher use of the A1013 and Daneholes roundabout and routes through Chadwell St Mary than modelled due to quicker journey times (and growth not reflective of the future growth locations).</p> <p>i. The modelling shows there is an increase of nearly 14% total travel distance (pcu.kms/hr) with LTC, resulting in 9% to 11% increase in CO2 emissions and 6% to 7% increase in NOx.</p> <p>Please refer to Report titled “<b>Junction Assessment and Mitigation Analysis</b>”, October 2020. The junction modelling shows that:</p> <p>a. The performance of some approaches to The Manorway and Orsett Cock roundabouts will be impacted by the introduction of LTC.</p> <p>b. The off slips from the A13 at both The Manorway and Orsett Cock roundabouts are likely to block back on to the mainline and/or impact on the slip roads from the LTC.</p> <p>c. The LTC causes the performance of the ASDA roundabout to significantly deteriorate.</p> <p>d. Daneholes roundabout is at risk of regularly being used as a rat-run from the LTC, and any more significant use of the A1013 than modelled in LTAM would impact upon not only the traffic, but bus services that operate through the junction.</p>
Percentage change in flow (pg. 134-137)	See comments in response to the 'Forecasts with the Lower Thames Crossing' section above.
Percentage of heavy goods vehicles (pg. 138-141)	See comments in response to the 'Forecasts with the Lower Thames Crossing' section above.
Journey times (pg. 142)	Through analysis of the journey times extracted from the model, it remains a concern that journey times via Orsett Cock, A1013, Daneholes roundabout, to Grays or via Marshfoot Road junction to the Tilbury area are faster than via Dartford Crossing. It is a concern of the Council that this route will become a rat-run for strategic traffic once LTC is open. This route is not suitable for strategic traffic due to the two schools on that route and residential frontage. Although controlling HGV traffic using minor roads has been noted, this concern has not been specifically mitigated within the DCO application and as such no specific measures have been outlined.

Relevant Section in the Operations Update	The Council's Comments
Change in volume/capacity (pg. 142-149)	See 'Changes in flow '. The LTC results in a significant impact on the local highway network on the east side of Thurrock urban area, specifically focussed along the A13 east of Orsett Cock, Orsett Cock and The Manorway, A1013, Marshfoot Road/Junction and ASDA roundabout. Notwithstanding the previous comments made regarding the validation of the base model and potential further unmodelled impacts, no mitigation has been proposed, which is a concern to the Council.
Scale of predicted impacts on roads and junctions (pg. 150-153)	<p>a. It is noted that the main impact of the LTC on Thurrock's local road network is on the eastern side of the A13/LTC junction and around The Manorway, previously known impacts also remain from the previous DCO application, these include significant impacts at:</p> <ul style="list-style-type: none"> <li>i. Orsett Cock roundabout</li> <li>ii. The Manorway roundabout and links in close proximity</li> <li>iii. ASDA roundabout</li> </ul> <p>b. Furthermore, additional impacts on the local road network are noted at the following locations:</p> <ul style="list-style-type: none"> <li>i. A1013 (Daneholes roundabout), A149, Marshfoot Road,</li> <li>ii. Marshfoot priority junction (with slips to A1089)</li> <li>iii. Brentwood Road and Chadwell Hill, Chadwell St Mary</li> <li>iv. A1012/Lodge Lane/Long Lane Roundabout</li> <li>v. Stifford Clays Road</li> <li>vi. A13/A126 eastbound off slip</li> <li>vii. M25 J30 - Mardyke Interchange</li> <li>viii. Devonshire Road/A1012/Hogg Lane</li> </ul> <p>c. Additional mitigation measures or schemes to reduce these impacts on Thurrock's local road network are required and further detail on what would be done to do so should be provided during consultation.</p> <p>d. Figure 4-18 identifies major adverse impacts or moderate adverse impacts as a result of the project (operational) although there appears no reference to these areas within the preceding narrative (p142 onwards). It is therefore unclear which routes these are.</p>
Bus routes (pg. 154-158)	<p>a. It is assumed that discussions with the bus service providers have been made during this consultation with the modelled outputs being provided for their assessment, however, there is no evidence that their concerns have been mitigated or recognised.</p>

Relevant Section in the Operations Update	The Council's Comments
	<ul style="list-style-type: none"> <li>b. Bus services between Basildon and the employment in Thurrock will be important to support the growing travel demands. The adverse impact on journeys of the services is a concern. Mitigation should be considered to improve the bus journeys for this route. One of the main hospital sites that Thurrock residents use is the Basildon and Thurrock University Hospital located in Basildon. Impacts on bus journeys to and from this site could have an adverse impact on health, reducing health enhancing behaviours (e.g., attending clinics/checks/screening) if accessibility is reduced.</li> <li>c. LTC is a very significant investment in the nation's transport infrastructure. Notwithstanding the current and future impacts of the pandemic, we are at a point of significant change. New appraisal techniques have been developed and used to take account of the potential implications of these and to make judgements about the resilience of major investments to future change. In the Council's opinion, it would not be in the public interest to have to retrofit at great expense adjustments to the tunnel and associated works, which had only just been completed. The Council would welcome comments on how HE has engaged with the design requirements to accommodate the future change in public transport demand and use. The Council is concerned that HE is at risk of producing a scheme that does not account for future sustainable transport options post LTC/tunnel opening, thus leading to the value for money being limited.</li> <li>d. Identifies a pair of bus stops at Heath Rd that are due to be relocated by 400 metres. This area has the highest proportion of elderly residents in the borough and such a distance could potentially leave many residents unable to reach their local bus stop. This is a lifeline for many as it transports many elderly residents into Grays town centre.</li> <li>e. HE states that "<i>there are currently no proposals to run local buses</i>" on LTC but does not explore why this is so, despite national and government policy (NPS NN and GD 300) requiring that new strategic infrastructure of this type provides for public transport connections. The Council has raised these concerns with HE in other responses during engagement and within this consultation period. HE must reflect on the absence of provision for public transport to use the LTC corridor.</li> <li>f. HE states that "<i>longer-distance coaches</i>" may transfer from the Dartford Crossing to LTC. This would not apply to London bound coaches which are not able to access A13 west of LTC and are therefore not able to open up to the market within Thurrock.</li> </ul>
Changes to the transport model since supplementary consultation (pg. 159-162)	<ul style="list-style-type: none"> <li>a. The updated modelling evidence, including Forecasting Report and Transport Assessment, has not be provided within the consultation, yet the consultation material appears to be based upon this. Without this updated evidence the Council cannot fully comment on the consultation documents. Unless the Council has been given this information, and been consulted on it, the current consultation exercise will be defective. The aspects outlined within</li> </ul>

Relevant Section in the Operations Update	The Council's Comments
	<p>the Council's LTC Review of Transport Planning Evidence from Thurrock Council issued in March 2021 remain of concern.</p> <p>b. From the plots provided it is clear that there are noticeable increases, around ASDA roundabout and the A1089, between the previous models, which vary between +51 to potentially +1000 PCU, it is not clear on the exact value of this and if substantial impacts on the operation of the local highway network within Thurrock will be further impacted as result of this update to the transport models. HE must respond on how these effects are to be mitigated.</p>
Traffic impacts on the wider network (pg. 163-164)	See comments on the WNIMMP.
<b>Chapter 5: Environmental Impacts</b>	
Introduction (pg. 166)	The document does not include a section on population and human health, which is to be included within the ES. There is also no mention of cultural heritage/archaeology/historic buildings.
Our approach to the environmental assessment (pg. 167-168)	No reference to the historic environment OMS/WSI.
Recent updates to our environmental assessments (pg. 172)	No indication of the extensive trial trenching being undertaken at present or any results/conclusions, in fact no reference to the cultural heritage in this section.
Air quality (pg. 173-174)	<p>a. The summary provided relates only to the AQ modelling reported within the withdrawn DCO and has not been updated for revised transport modelling and assessment years and without provision of the model input data in GIS format it is not possible to assess its adequacy.</p> <p>b. Claim that '<i>overall air quality across the region would improve</i>' appears contrary to increase in regional AQ emissions and HEqIA submitted for DCO which showed overall disbenefit.</p> <p>c. Air quality modelling needs to take into account noted concerns from Thurrock Council on local traffic impacts.</p>

Relevant Section in the Operations Update	The Council's Comments
	<p>d. Perceptible increase in air pollutants noted to the South and East of the scheme in Thurrock, with a perceptible decrease in the West Thurrock area – this modelled data should be shared and used in the HEqIA to determine the health impacts of these changes and any consequential impact on health inequalities.</p> <p>e. Figure 5-2 shows perceptible increases in NO<sub>2</sub> within routes of Tilbury, Chadwell St Mary and Grays where air quality is already perceived as poor. These increases appear unmitigated.</p>
Air quality impacts on biodiversity (pg. 174-176)	Air quality effects on ecology sites are being assessed at 500 sites which is supported.
Noise and vibration (pg. 177)	<p>a. The summary provided relates only to the noise modelling reported within the withdrawn DCOv1 and has not been updated for revised transport modelling and assessment years. The update states that noise models need to be re-run. Therefore, the council would like to see the updated assessment for review prior to DCOv2 submission, as this is vital evidence that helps understand impacts</p> <p>b. Figure 5-3 illustrates areas in Tilbury, Ockendon and dappled areas within Grays with noise increases up to 2.9db or in excess of 3db (after mitigation measures). This is not acceptable, as we requested further information from HE to demonstrate that 'all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development' have been implemented with the intention of facilitating further discussion in order to reach an agreed outcome for all parties. These areas are home to some of our most vulnerable communities.</p> <p>c. Major adverse noise effects (after mitigation) will be experienced on the edge of East Tilbury, Linford, in the north of Chadwell St. Mary in and around the A13 junction and to the North of South Ockendon. Further mitigation or compensation required</p> <p>d. Stanford-le-Hope and Corringham not modelled, although will experience changes to traffic.</p>
Geology and soils (pg. 181)	No mention given to the potential important geological sequences being assessed as part of the heritage assessment.
Mitigation (pg.183-184)	This covers at high level the principles of the highway drainage, but again this is quite thin, albeit possibly due to the intended audience for the document. As with the construction update report, we would prefer to see this section enhanced to include reference to extensive use of Sustainable Drainage methods, Green Infrastructure etc. and the



Relevant Section in the Operations Update	The Council's Comments
	<p>requirements outlined in the Essex SuDS Design Guide. Again, this would tie into previous comments made about the overall LTC scheme being an aspirational development.</p>
<p>Climate and carbon (pg. 184)</p>	<ul style="list-style-type: none"> <li>a. The operation update includes previous GHG emission calculations as 5.98M tCO<sub>2</sub>e over the 60-year appraisal period, and referenced more detailed assessments. The calculations and results should be provided and referenced for these updated assessments for context. As per comments elsewhere, further information is needed to have a clear understanding of the spatial scope of the operational assessment of traffic, and to understand the associated assessment conclusions. As per our previous comments on the Carbon and Energy Plan (DCOV1 ES Appendix 15.1), we would expect estimates to be made of emissions reduction through phased/ increased use of electric vehicles. We would also anticipate calculations to be included of carbon emissions reduction of operational mitigation measures (Section 1.1.11).</li> <li>b. The mitigation measures included are high level and specific measures relevant to Thurrock should be clarified, for example in relation to the landscape design and GHG emissions offset, and specific measures to maintain existing and provide new connectivity for walkers, cyclists and horse-riders.</li> <li>c. The government's transport decarbonisation plan was published in July 2021. '<b>Decarbonising Transport: a better, greener Britain</b>' sets out the Government's commitments and the actions needed to decarbonise the entire transport system in the UK and to deliver net zero by 2050 (<a href="https://www.gov.uk/government/publications/transport-decarbonisation-plan">Transport decarbonisation plan - GOV.UK (www.gov.uk)</a>).</li> <li>d. Clarity should now be provided on how LTC will incorporate measures to reduce road user emissions to support and deliver the transport decarbonisation plan and Highways England's 'Net Zero for Highways Plan' targets, which are now adopted.</li> </ul>
<p>Mitigation (pg. 185-186)</p>	<ul style="list-style-type: none"> <li>a. The project should be maximising the opportunity to enable people locally to travel sustainably to mitigate and offset the local traffic impacts (and therefore consequential GHGs). More ambitious plans should be in place to do this and should incorporate at least one "LTC cycle superhighway" in the borough to provide alternatives to the use of vehicles and assisting with mitigating climate change and carbon impacts.</li> <li>b. Mitigation recognises the importance of maintaining connectivity for walkers, cyclists and horse-riders and providing alternatives for vehicle use; however, the Ward Summaries identify several key routes will be closed for at least 5 years with no details yet of possible diversions.</li> <li>c. As part of LTC the Council is seeking a step-change in walking cycling and horse riding usage for commuting and recreation. This needs to help ensure an integrated network of routes is provided. These should be of a specification suitable to accommodate increasing use in the future. It is not acceptable to reconnect severed routes and maintain that that is an improvement in the network provision or is mitigation.</li> </ul>

Relevant Section in the Operations Update	The Council's Comments
Operational impacts (pg. 186)	This section recognises the long-term negative effects on the landscape with structures, such as the viaducts remaining visible.
Mitigation (pg. 187-193)	It is recognised that even after 15 years the new planting and bunds will not fully mitigate the impacts of the scheme.
Intra-project effects (pg. 194)	It is noted that intra-project cumulative effects have not been included in the ward summaries for communities. It is therefore assumed that mitigation for these wards has not been addressed.
Inter-project effects (pg. 194)	No description of inter-project effects detailed. No mitigation detailed.
<b>Operations Maps</b>	
	<ul style="list-style-type: none"> <li>a. It has been highlighted that a future junction is proposed immediately north of the Northern Portal tunnel entrance. This would require the proposed pond POS08-001 to be relocated, resulting in additional scheme costs, flood risk and environmental disruption. It is recommended that the location of this structure is reviewed and if practical, it be relocated to a position that would prevent the need for such disturbance. In relocating the structure, greater opportunity should also be sought to deliver multiple benefits, such as enhanced amenity value and bio-diversity.</li> <li>b. There appears to be quite a significant distance between the proposed SuDS storage structures. This would indicate extensive use of 'traditional piped drainage systems' to convey water from the carriageway to the proposed point of outfall. Whilst we are still awaiting details of the proposed piped network design, we would suggest greater consideration is given to increasing the use of open SuDS features across the scheme, rather than concentrating these close to the outfall of each network. This would open up greater opportunity to deliver multiple SuDS benefits across the scheme.</li> <li>c. Further details to be provided on how surface water run-off around the Northern Portal of the tunnel will be managed during the scheme operation. Whilst it is understood that detailed design of the drainage system is still to take place, it is not clear how surface water at the Northern Portal will be managed and whether this process will meet the LLFA policy requirements outlined in the Essex SuDS Design Guide. It should be made clearer within the report what arrangements are being proposed within the scheme to address this issue.</li> </ul>

## 2.2 Summary and Recommendations

2.2.1 Key issues and recommendations identified above by the Council can be summarised as:

- a. **Impacts on the Local Road Network** – The document unacceptably downplays the effects the LTC will have on the operation of the local road network. This matter has been raised by the Council through many responses to information provided by HE and at many engagement meetings during the years building up to the aborted October 2020 DCO submission, as well as in the engagement period since its withdrawal. Substantive technical evidence has been provided by the Council to HE to demonstrate its concerns and responses on those concerns are still required. Unless and until HE show how those comments have been considered, there cannot be said to have been an effective consultation.
- b. **Modelling** – The consultation material appears to be based on updated modelling evidence. However, this has not been provided with the consultation, meaning that the Council cannot fully comment on the documents provided. Unless the Council has been given this information, and been consulted on it, the current consultation exercise will be defective. The aspects outlined within the Council's LTC Review of Transport Planning Evidence from Thurrock Council issued in March 2021 remain of concern.
- c. **Local Traffic Counts** – The Council is concerned that no local road traffic counts (except on the A13) have been used to calibrate or validate the model. A comparison of the model flows compared to observed flows undertaken by Thurrock shows that, in general, traffic flows are low on local roads in the base year model and in particular, low on: the A1013; links near Orsett Cock; on A1014 The Manorway; and A1089 near ASDA. The Council has consistently and repeatedly raised concerns at meetings and via representations that the impacts on the local roads and junctions are likely to be underestimated as a result of the lower level of traffic on the local roads. Detailed junction assessments should be carried out, in any case, at key pressure points on the network, using accurate baseline traffic data, such as: Orsett Cock, The Manorway roundabout, ASDA roundabout, Daneholes roundabout and Marshfoot Road junction.
- d. **Walking, Cycling and Public Transport** – HE is required to work towards a strategic network which provides for strong connections for walking cycling and public transport. It is the Council's opinion that the proposals do not provide a strong network for walking and cycling and that the corridor hinders public transport connectivity within Thurrock and does not promote opportunities for cross river public transport connections. Mitigation recognises the importance of maintaining connectivity for walkers, cyclists and horse-riders and providing alternatives for vehicle use; however, the Ward Summaries identify several key routes will be closed for at least 5 years with no details yet of possible diversions. It is not acceptable to reconnect severed routes and maintain that that is an improvement in the network provision or is mitigation.
- e. **Cultural Heritage** – In terms of cultural heritage, particularly buildings, the issue is that historic/listed buildings and conservation areas (including the three Grade II listed buildings being demolished) are not mentioned, so the solution is for HE to include reference to them. The Operations Update does not mention cultural heritage at all.
- f. **Surface Water and the Order Limits** – Order limits could be affected by changes to surface water storage structures, of which the Council has concerns over calculated discharge rates and ground water levels. HE should undertake detailed Ground Investigation work at this stage of the project to determine if the Order Limits will be affected by changes to surface water storage structures and the drainage strategy.
- g. **Human Health** – The Environmental Impacts section of the document does not include a section on population and human health, which is to be included within the ES. Further

information is required on the impact on Linford Allotments so the possible effects on human behaviour can be considered. Concerns are raised on the following sport and recreation facilities as they will be used by the local community:

- i. Orsett Park Royals Football Club pitches
  - ii. Orsett Golf Club
  - iii. Thurrock Rugby Football
  - iv. Mardyke Valley /North Road
  - v. Grangewaters Outdoor Education Centre car park
  - vi. Top Meadow Golf Club
- h. **Air Quality** – HE claim that LTC will improve the overall air quality across the region. The Economic Appraisal submitted for the DCOv1 application however showed an overall disbenefit to the area, hence contradicting this claim. Updated GIS data should be provided to the Council for review to assess the air quality modelling for the revised transport model of this consultation as the summary provided in the Operations Update relates to the withdrawn DCO application.
- i. **Noise** – Likewise, the reported noise modelling summarised in the Operations Updated relates to the withdrawn DCO application. Therefore, the Council requests that updated noise model is shared with the Council, prior to the next DCO submission. This is required so that the impacts can be assessed.
- j. **Climate and Carbon** – The Decarbonisation Plan was issued by the Government in July 2021, outlining the commitments and actions needed to achieve the decarbonisation of the transport system. HE should provide evidence and clarify how LTC fits into this plan, and how the measures will be incorporated.
- k. **Map Reference Points** – Changes to the design are commented on by the Council, many of which the Council request further information on to understand the amendments. These include works in the river, the removal of the jetty amendments to the Order Limits on **Buckingham** Hill Lane, the Orsett Cock interchange, the proposed landscape design at the Mardyke Crossing and the design of Tilbury Fields which is subject to ongoing discussions.
- l. **London Resort** – The current traffic modelling work shows no evidence that the impact of the **resort** has been included. With these flows included, it is very possible that any capacity is taken by the existing A1089 and mitigation at ASDA roundabout will prove even more necessary. The Tilbury area relies on a single access via the A1089 and local businesses may not be able to operate successfully with priority given to London Resort traffic.
- m. **Changes in Flow** – The Council has the following concerns, as outlined in the Report titled '**Review** of the Effects of the LTC within Thurrock: DCO Cordon Model Review':
- i. Underestimation of base traffic flows, particularly at Orsett Cock, Manorway junction, A1013, A128/Rectory Road, and ASDA roundabout.
  - ii. Increases in traffic flows at Orsett Cock and Manorway junctions.
  - iii. Traffic flow increases on both the A13 and local roads including the A1014 The Manorway, London Road/Corringham Road, A1013 Stanford Road and A13/A176 junctions.

- iv. Adjustments have been made to zone loading points and addition of new network has been included without any model validation undertaken, thus resulting in local changes in traffic routing and rat running, specifically noted at Rectory Road, Orsett. This also leads to concerns over an increase in traffic through Orsett village.
- v. It is not known that as a result of the point above, whether traffic levels and therefore the delays at Orsett Cock are accurate representations of what could occur in the future with LTC in place.
- vi. HGV bans have been redefined; however it is not known how new bans specifically related to port traffic would be enforced. There are no detailed proposals (Note: enforcement is already a challenge and LTC will increase the risk of HGVs using the routes).
- vii. Risk of higher use of Orsett Cock roundabout (and potentially The Manorway junction) for u-turning from the LTC to A1089 than modelled due to quicker journey times (and potential growth in traffic arriving from south of the River Thames and inaccurate future growth locations).
- viii. Risk of higher use of the A1013 and Daneholes roundabout and routes through Chadwell St Mary than modelled due to quicker journey times (and growth not reflective of the future growth locations).
- ix. The modelling shows there is an increase of nearly 14% total travel distance (pcu.kms/hr) with LTC, resulting in 9% to 11% increase in CO<sub>2</sub> emissions and 6% to 7% increase in NO<sub>x</sub>.

The 'Junction Assessment and Mitigation Analysis' modelling shows that:

- i. The performance of some approaches to The Manorway and Orsett Cock roundabouts will be impacted by the introduction of LTC.
  - ii. The off slips from the A13 at both The Manorway and Orsett Cock roundabouts are likely to block back on to the mainline and/or impact on the slip roads from the LTC.
  - iii. The LTC causes the performance of the ASDA roundabout to significantly deteriorate.
  - iv. Daneholes roundabout is at risk of regularly being used as a rat-run from the LTC, and any more significant use of the A1013 than modelled in LTAM would impact upon not only the traffic, but bus services that operate through the junction.
- n. **Bus Routes** – The Council request evidence that during this consultation, discussion with bus service providers have been made. Adverse impacts on bus journeys are a concern for employment areas within Thurrock, particularly from Basildon. Mitigation should be considered to improve the bus journeys for this route. National and government policy (NPS NN and GD 300) require new strategic infrastructure, like LTC, to provide for public transport connections, however HE states, without explanation, that *“there are currently no proposals to run local buses”*. The Council recommend this is reviewed.
- o. **Operational Maps** – Additional scheme costs, flood risk and environmental disruption are the result of relocating proposed pond POS08-001 as a consequence of the additional junction immediately north of the Northern Portal tunnel entrance. HE should review the location of this structure with the view to limit its disturbance. The Council has noticed that the distance between drainage storage features is significant and ask HE to give consideration to using open SuDS features across the scheme. The Essex SuDS Design

Guide outlines the LLFA policy, however, further details are required on the management of surface water run-off around the Northern Portal of the tunnel.



## Lower Thames Crossing

Review of You Said, We Did

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of You Said, We Did

**Doc Ref:** Revision B

**Date:** October 2021

	Name	Position	Signature	Date
<b>Prepared by:</b>	Various	-	-	July/August 2021
<b>Reviewed by:</b>	Chris Stratford	Consents and DCO Senior Consultant	CS	08/09/2021
<b>Approved by:</b>	Chris Stratford	Consents and DCO Senior Consultant	CS	08/09/2021
<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	-	CS	CS
B	05/10/2021	Issued to National Highways	-	CB	CB

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the assessment details for the You Said, We Did.
- 1.1.2 This document sets out the Council's comments on the proposed You Said, We Did document.
- 1.1.3 The document follows the same structure as You Said, We Did and responds only to those sections relating to the north of the river within Thurrock, where we have comments. Sections where we have no comments have been omitted from the document review.

## 2 Review of You Said, We Did

### 2.1 Comments

Table 2.1: The Council's Comments on the You Said, We Did

Relevant Section in the You Said, We Did		The Council's Comments
<b>Chapter 1: Introduction</b>		
para 13-20	How we develop this document	<p>In paragraph 15, the approach by HE to focus their responses on the issues which received the most number of responses runs the risk of missing the key points that might receive few responses but are critical to the success of the proposal and is contrary to advice by PINS, which stresses that issues are not only important due to the numbers of stakeholders raising them, but also for their inherent importance.</p> <p>It is also not clear whether the results that were grouped as one response during the initial consultation were counted as 1 issue also and therefore not picked up as the most number of responses.</p> <p>We do not believe there has been substantial analysis of responses in relation to people's diversity monitoring information. Is there an issue that only affects a particular group with protected characteristics, for example, that is not then picked up through this method of focusing in numbers of responses.</p>
<b>Chapter 2: Statutory consultation</b>		
para 21-38	Developing the project	<p>Para 21 – The Council has not seen the alternative option testing. This has not been made available, other than some commentary (i.e. no modelling results of details or the designs) within the 'Approach to Design, Construction and Operation' in July 2018. The Council has been requesting details on the option testing since 2018, such as modelling results, design assumptions, etc. The reasons for not including the Tilbury Link Road have not been proven in any evidence nor are they all valid anymore. See detailed response to para 95.1-95.7, 95.8-93.10.</p> <p>Para 31 – the Council is not satisfied that the prospects for the Tilbury Link Road have been fully evaluated and it continues to require that HE promotes the link road and a junction with the LTC as part of this Project and not delaying a decision for subsequent non-committed funding through the RIS3 process.</p>

Relevant Section in the You Said, We Did		The Council's Comments
para 43	Traffic assessments	<p>At the time of review of this documentation no updated supporting transport models were provided alongside this consultation, therefore, we refer to the last submitted model review document issued to HE in June 2020 (LTC Consultation - Review the Effects of the LTC within Thurrock - Supplementary Consultation Modelling Review) as well as the local junction assessments report (LTC Consultation - Junction Assessment and Mitigation Analysis issued in October 2020) undertaken to identify possible mitigation at key areas within Thurrock.</p> <p>Our key concerns as provided within this documentation and further outlined within the Operations Update and Ward Impact Summaries, remain unchanged.</p>
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 17-28</b>		
para 65.10-65.11, 66.14-66.18	Transport	<p>Concerns remain regarding the lack of detail regarding option testing, as outlined within the LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 Ref 10.11.</p> <p>The Council is seeking transparency on the appraisal of alternative options, i.e. different configurations of the LTC considered, for example the Tilbury Link Road, A13/LTC junction (restricting different movements or all movements with the A13), public transport access to and from the LTC particularly from Thurrock urban area.</p> <p>It seems that HE is considering public transport as an either/or scheme, rather than what additional benefit the LTC could offer for public transport. Given the aspirations for decarbonisation, these opportunities do not appear to have been given consideration.</p> <p>Paragraph 66.17 implies that the currently proposed arrangement for the Project 'could be used by public transport'. The Project is not configured to facilitate viable public transport services along the route of the LTC and HE must reconsider this point. The Council has expressed this point and provided concepts for consideration by HE.</p>
para 65.13, 66.21-66.25	Community	<p>There is no appraisal of environmental transport impacts such as severance, fear and intimidation. This assessment must be carried out (and subsequently consulted upon) through the Environmental Impact Assessment, which currently does not recognise the effect of the project on local travel networks. No mitigation appears to have been offered on the local networks to address the impacts as a result of increasing construction or operational traffic.</p>

Relevant Section in the You Said, We Did		The Council's Comments
		<p>HE's document 'Approach to Design, Construction and Operation', prepared in July 2018, provides reasons for not including the Tilbury Link Road, but no evidence was provided to support the commentary within this report and the stated reasons are no longer all valid.</p> <p>The Council has provided responses on the paucity of robustness and commitment within the proposed control documents, including the Code of Construction Practice (CoCP); the Outline Traffic Management Plan for Construction (oTMPfc), the Outline Materials Handling Plan and the Framework Construction Travel Plan. The mitigation indicated within those documents and the governance of that mitigation and associated management processes must be enhanced to be effective. HE needs to reflect on the balances between the need to minimise impacts on communities from the siting of project compounds set against the need to provide good access to compounds for workers to travel by non-car modes. Both approaches must be equally robust.</p> <p>Documents and consultation information has been very complex, with a vast amount of information. Though this is unavoidable there should be better promotion of easy read versions or summary documents to allow those that are time poor or that require an easy read version to respond. Though HE have said easy read versions are available, however, the ease of navigating the system in order to do so does not align with those that would have the need for an easy read version.</p> <p>The HEqIA needs to assess if there are any particular community groups that are negatively or disproportionately impacted, e.g. those with a disability having a further adverse impacts on their health due to environmental impacts.</p>
para 65.18-65.19, 66.36-66.40	Existing roads	Paragraph 66.38 - the Council is concerned that HE is proposing through the Wider Network Impact Management and Monitoring Plan, a strategy to review the effects of the Project on local roads. The mechanisms within that Plan to then seek funding is flawed in that the funding is not allocated or ring-fenced and could not be achieved, leaving the local network suffering from impacts that should be defined and mitigated through the DCO Evidence and the funding for the Project.
para 65.20, 66.41-66.47	Traffic	Paragraph 66.41 and 66.43 - HE should not blindly follow a course to 'relieve the congestion at the Dartford Crossing' with no thought for mitigating the effects of the resultant Project, such as the excessive sterilisation of land in Thurrock; the creation of a complex and convoluted interchange at A13; and impacts on local roads within Thurrock. The proposed scheme does nothing to encourage a move away from the use of fossil-fuelled vehicles or to encourage active travel or public transport. It is not aligned with the Governments objectives as indicated within the NPS NN, and does

Relevant Section in the You Said, We Did		The Council's Comments
		not help towards the Governments Carbon Budget. These comments are reiterated throughout the Appendices and Main Report in the Council's Consultation Response.
para 65.21-65.22, 66.48-66.49	Transport	<p>Concerns remain regarding the lack of detail regarding option or sensitivity testing, as outlined within the LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 Ref 10.11 and Ref 10.12 regarding future-proofing/resilience of the scheme and connectivity for new local bus services crossing the river.</p> <p>The consultation documents make no substantive reference to the implications to the LTC scheme of transport decarbonisation, how the scheme might need to be adapted to respond to this challenge, or to become an enabler of transport decarbonisation and green growth in the Thames Estuary alternative modes and travel patterns.</p> <p>The Council wishes to raise a few key points from the recent correspondence as part of this consultation and for further discussion:</p> <ol style="list-style-type: none"> <li>HE suggests that the Lower Thames Crossing will provide for faster journeys by public transport. Public transport services to and from Thurrock urban areas, South Ockendon, Stanford-le-Hope, Corringham and Basildon will be important to the future growth of these areas. However, in the absence of the Tilbury Link Road there is no convenient access for local public transport to the tunnel. Public transport journeys between origins and destinations north and south of the river would be unviable, being too long via the currently proposed Lower Thames Crossing. The Council has suggested the temporary use of the emergency access for public transport access to bridge the anticipated gap between the delivery of the Lower Thames Crossing and Tilbury Link Road, (which could be indefinite), but this has been rejected. Far from being a stimulus for local public transport connections, the Council believes that the Lower Thames Crossing will act as a deterrent to public transport operators and users.</li> <li>HE has referred to the importance of the strategic road network for the future of freight movement, government's ambition to achieve zero emission HGV's, and the importance of expanding the rail network and inter-modal terminals in achieving net zero. Setting aside for the time being the issue of rail (and the potential for north-south connections across the Thames and around the congested London rail network), there are important questions to consider about how the strategic road network interfaces with freight movement to transform its operation. For example, encouraging the development of a hydrogen network for freight and construction vehicles, developing locations for intermodal and last mile connections (including transfer to river transport), and delivering enabling</li> </ol>

Relevant Section in the You Said, We Did	The Council's Comments
	<p>roadside technology, (such as the development of HGV platooning technology) to support improved logistics functionality and operation, thus enabling safety and environmental gains.</p> <p>c. HE states that the Tilbury Link Road is being developed by HE, and that this will provide an important connection for buses (and freight/ port traffic). If this is such an important component of the overall solution, how can the delivery of this part of the scheme be secured? As it stands, it is entirely possible that the Lower Thames Crossing will be delivered, without the Tilbury Link Road and this could be in perpetuity. In this case, potential benefits for public transport and freight connections, and consequential impacts on local roads will persist indefinitely. The Council therefore wishes to agree a mechanism through which the TLR can be delivered prior to RIS3, in line with programme for delivery of LTC.</p> <p>d. The Council notes HE's comment about the 6th carbon budget methodology currently suggesting that vehicle electrification and the introduction of CAV technology will result in increases in demand, on the basis of assumptions made. Are these good outcomes for carbon reduction and community cohesion? What assumptions would need to be made to secure reductions in single vehicle use, and how might these apply to the road user charging regime for the Lower Thames Crossing. How could the operational regime be used to create positive outcomes from a carbon and community perspective? The Council has seen no assessment of uncertainty as part of the development of this scheme, and no evidence of proposals that could suggest that the Lower Thames Crossing could become a transformational project.</p> <p>The Council believes that HE should be making commitments in the DCO about transport decarbonisation and its implications locally. HE has stated that the DCO commitments on carbon will be stronger and more comprehensive than previously seen, but has expressed concern about committing to delivering outcomes that are inherently uncertain. However, the Council believe that it is possible and desirable to set broad objectives, secured through the DCO. It is not necessary to have all the answers, but it is important to set the framework for future action. At present, there is nothing which acts as an incentive on HE to make a concerted effort to be progressive on this agenda, and the Council believes that this needs to be grasped.</p>
para 65.24, 66.52-66.55	<p>Transport</p> <p>Concerns remain regarding the lack of detail regarding option testing, as outlined within the LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 and Ref 10.6 and Ref 10.18 regarding the option to deliver Tilbury Link Road, further journey time analysis has reinforced that the TLR would benefit traffic movements from the Pot of Tilbury north and south along the LTC, additionally the lack of option testing see Ref 10.11 also remains a concern.</p>



Relevant Section in the You Said, We Did		The Council's Comments
		The Council has expressed that the Tilbury Link Road and an associated interchange with LTC should form part of and delivered with the Project proposals and not be pushed into the future as an unfunded proposal. The Council was not supportive of a stand-alone Rest and Service Area (RaSA), which brought no connectivity advantages to the borough.
para 65.25, 66.48-66.49	Construction	The Council supports the use of excavated material within the trace of the Project and encourages HE to make much greater strides in the use of non-road transport to further reduce the need for moving materials and equipment on the road network. This is in the interests of safety within the local communities and to reduce environmental impacts. The Outline Materials Handling Plan, which has been presented as part of this Community Impact Consultation fall short of any positive commitments by HE to using non-road transport. It will be unsatisfactory to leave the decisions to contractors, whose prime objective will be time and cost savings and not driven by environmental motives. He needs to take a lead on these matters, i.e. they need to identify, appraise and consult upon a positive strategy.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 29-35</b>		
para 72.1, 73.1-73.9	Traffic	<p>As outlined within the LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 specifically Ref 10.1 and 10.2/10.3 regarding local model validation, rat-running on local roads and enforcement thereof are still key concerns of Thurrock Council and further information regarding these aspects should be provided.</p> <p>Limited or no local mitigation measures have been identified with only a weak commitment to monitoring of junctions on the opening of the LTC. The Council remains concerned regarding commitment and funding of any local mitigation, if the monitoring shows there are impacts. Ref 10.22 provides further detail on these concerns. Also see Operation Update and Ward impact summary for further information.</p> <p>The Council has also sought to understand the alternatives that have been explored by HE as to the form and design of the A13/A1089/A128/LTC interchange. Thus far, there is no evidence of any alternative designs having been considered or appropriately appraised. The proposed configuration is land hungry, convoluted, confusing and potentially unsafe. The Council does not support the current arrangement and wishes to understand whether suitable alternatives should be pursued. HE should not be entirely driven by the aspiration to reduce congestion at the Dartford Crossing at the expense of other areas.</p>

Relevant Section in the You Said, We Did		The Council's Comments
para 72.2, 73.10-73.16	Environmental impact	"...the Mardyke viaduct and Orsett Fen viaduct lengths were increased by approximately 50 metres, which increased the open aspect and reduced the volume of flood compensation required in this area. The heights of the viaducts were kept as low as possible, to reduce their visual impact and the footprint of the embanked section as far as possible."
para 72.3, 73.17-73.21	Air quality	Response summarises that no changes were made as impacts do not cause exceedance of thresholds in accordance with the LA105 methodology. Comments on this topic cannot usefully yet be made, as the Council and others are still awaiting updated air quality modelling and assessment results.
para 72.5, 73.29-73.36	Community	The Council has raised concerns related to both construction traffic impact and operational traffic impacts in 'Thurrock Cordon Model Construction Modelling Review, May 2021' and 'Review of the Effects of the LTC within Thurrock: DCO Cordon Model Review', October 2020 respectively. No mitigation or response has been issued.  No response to specific communities, e.g. travellers site.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 37-42</b>		
para 82.2, 82.10-82.17	Transport	As outlined within the LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 specifically Ref 10.1 and 10.2/10.3 regarding local model validation, rat-running on local roads and enforcement thereof are still key concerns of Thurrock Council and further information regarding these aspects should be provided.  Limited or no local mitigation measures have been identified with only a weak commitment to monitoring of junctions on the opening of the LTC. The Council remains concerned regarding commitment and funding of any local mitigation, if the monitoring shows there are impacts. Ref 10.22 provides further detail on these concerns. Also, see Operation Update and Ward impact summary for further information.
para 82.4, 82.18-82.24	Air quality	Response summarises that no changes were made as impacts do not cause exceedance of thresholds in accordance with the LA105 methodology and relies on the CoCP for control of dust. However, the Council understand that there may be unacceptable increases on the A1013 and on Brentwood Road. However, comments on this topic cannot usefully yet be made, as the Council and others are still awaiting updated air quality modelling and assessment results.

Relevant Section in the You Said, We Did		The Council's Comments
para 82.5, 82.25-82.36	Land	<p>Add mitigation measures in the form of Materials Handling Plan to ensure appropriate segregation of arising types and a soil management plan (reference appropriate guidance) to protect and reinstate soils.</p> <p>No comment on loss of green belt /spaces other than needing further clarity on area of permanent loss and area of compensation.</p>
	Community	This just duplicates their response in the previous question and does not address any specific concerns. Was adding green bridges something the community asked for as a mitigation, Further clarity on what has done to reduce impact is needed.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 44-48</b>		
para 83.3, 83.10-83.19	Land	No comment on loss of green belt /spaces other than needing further clarity on area of permanent loss and area of compensation.
para 83.4, 83.20-83.26	Air quality	Response summarises that no changes were made as impacts do not cause exceedance of thresholds in accordance with the LA105 methodology and relies on the CoCP for control of dust. However, the Council understand that there may be unacceptable increases on the A1013 and on Brentwood Road. However, comments on this topic cannot usefully yet be made, as the Council and others are still awaiting updated air quality modelling and assessment results.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 49-53</b>		
para 84.3, 84.11-84.12	Transport	It should be noted that there are no apparent turnback facilities for dangerous loads or oversized loads and although such occurrences would be infrequent, the lack of facilities should be reconsidered.
para 84.4, 84.13-84.17	Transport	The Council supports the emergency services concerns about the safe operation of the network and the incident response procedures in the event of major incidents which may block the tunnels or cause severe problems between junctions. Access to sections of the corridor is extremely challenging for emergency services, especially due to the absence of hard shoulders and limited lanes. Trapped vehicles have no option but to wait for the incident to be cleared

Relevant Section in the You Said, We Did		The Council's Comments
		before continuing. With major incidents this could be many hours. The Expressway design and guidance continues to be tested and has been questioned through research into the similar Smart Motorways initiatives. The ESSPSG will be responding on behalf of all the Emergency Services with comments on the consultation and its emergency provision and will set out their requirements.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 55-64</b>		
para 86.1, 86.7a-86.7c	Location	The Council has raised concern about the lack of options appraisal related to the scheme configuration, rather than its broad location.
para 86.2, 86.7d-86.7g	Traffic	LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 is the most recent list of issues raised prior to this consultation. The majority of these issues have yet to be responded to by HE.
para 86.6, 86.33-86.46	Land	No comment on loss of green belt /spaces other than needing further clarity on area of permanent loss and area of compensation.
para 86.7, 86.47-86.56	Noise and vibration	No comment as no additional work undertaken. With regards to construction detailed proposals of the planned works, noise monitoring and mitigation measures will be discussed with the relevant local authorities before construction works begin.
	Air quality	Still awaiting air quality modelling.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 66-68</b>		
para 89-90	Northern connections	No comments.

Relevant Section in the You Said, We Did		The Council's Comments
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 70-75</b>		
para 93.1, 93.6-93.9	Traffic	<p>The Council has raised its concerns with the current strategic modelling and the absence of robust local network impact analysis. The views are raised across a number of operational and construction focused documents and related correspondence between the Council and HE. The necessary mitigation cannot be assessed until reliable and appropriate modelling has been completed and provided to the Council for review and response. Unless the Council has been given this information, and been consulted on it, the current consultation exercise will be defective.</p> <p>The Council has also yet to see evidence that the layout and design of the Orsett Cock interchange is safe and appropriately designed for the traffic loadings that are envisaged.</p>
para 93.2, 93.10-93.18	Air quality	Response summarises that no changes were made as impacts do not cause exceedance of thresholds in accordance with the LA105 methodology and relies on the CoCP for control of dust. However, the Council understand that there may be unacceptable increases on the A1013 and on Brentwood Road. However, comments on this topic cannot usefully yet be made, as the Council and others are still awaiting updated air quality modelling and assessment results.
para 93.6, 93.32-93.40	Land	No comment on loss of green belt /spaces other than needing further clarity on area of permanent loss and area of compensation.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 77</b>		
para 95.1-95.7, 95.8-93.10	Transport, communities, air quality and noise	<p>Response summarises that no changes were made as impacts do not cause exceedance of thresholds in accordance with the LA105 methodology and relies on the CoCP for control of dust. However, the Council understand that there may be unacceptable increases on the A1013 and on Brentwood Road. However, comments on this topic cannot usefully yet be made, as the Council and others are still awaiting updated air quality modelling and assessment results. Unless the Council has been given this information, and been consulted on it, the current consultation exercise will be defective.</p> <p>63% respondents supported (with 14% opposing it). It remains unclear why the junction has been removed.</p>

Relevant Section in the You Said, We Did	The Council's Comments
	<p>Originally, the Tilbury Link Road (TLR) was included in the DfT's non-statutory consultation, which closed in March 2016 and then it was included in the HE Scoping Report for the LTC scheme submitted to the Planning Inspectorate in late 2017. Subsequently, it has not been included in any Consultation proposals and the rationale for this has not clearly been stated in those consultation materials, particularly as the Department of Transport's April 2018 report 'England's Port Connectivity: the current picture' (it covered 9 regional case studies) confirms that the Lower Thames Crossing is expected to offer new connections, as well as improved journey times and network reliability and it includes a junction for Tilbury Port. It was preceded by the DfT's 'Study of England's Port Connectivity' in 2017.</p> <p>The reasons for not including the TLR were set out in the 'Approach to Design, Construction and Operation' in July 2018. These are not considered valid by the Council but seem to have guided HE's approach since that time, even though some reasons are now out of date.</p> <p>It is clear that access to the Port of Tilbury once the LTC scheme is completed and operational will be circuitous from the LTC north and southbound. The routes vary but in order to access the Port from LTC, traffic would need to go either via the Orsett Cock Roundabout (along the A1013 to Daneholes Roundabout, via Wood View and Marshfoot Road to join the A1089), through Chadwell St. Mary (along Brentwood Road, via Marshfoot Road to join the A1089), U-turning at Manorway Roundabout (back along the A13 to the A1089) or use the existing Dartford Crossing.</p> <p>The local A roads and unclassified roads/junctions are not designed to accommodate these increases in traffic and/or HGV traffic. There are safety, air quality and noise concerns relating to increasing traffic and HGVs, particularly related to the schools, residential dwellings, and local bus services along these routes.</p> <p>The timing of the routes from both directions would involve a journey time of approximately 25-30 mins and 31kms, whereas using the TLR would take just 10-11 mins and 13 kms.</p> <p>In view of the non-inclusion of the TLR within the current LTC scheme, then it becomes necessary to find ways to accelerate its delivery before RIS3 using DfT's funding and delivery mechanisms. There are three very important reasons for doing this with the assistance of both HE and the LTC scheme team:</p> <ol style="list-style-type: none"> <li>It is a missed opportunity to remove HGV traffic to/from PoTL from the local road network, by providing the TLR, avoiding reliance on unsuitable local roads where there will be significant risk of accidents and air quality and noise</li> </ol>

Relevant Section in the You Said, We Did		The Council's Comments
		<p>impacts. Currently the A1089 and the Asda Roundabout are used by multiple users often with resulting delays and congestion.</p> <p>b. It is a missed opportunity to assist with the realisation of Thames Freeport, the planned growth of the Port of Tilbury and the expansion of DP World; and, the delivery of Thurrock's emerging Local Plan's employment and housing growth, which will deliver traffic increases, not currently considered by LTC's traffic modelling.</p> <p>c. TLR's delivery is fundamental to support the Thames Freeport and ensuring that there is a deliverable strategy to avoid unnecessary impacts of HGVs accessing LTC on local communities.</p> <p>An interim measure for the LTC scheme would be to legally commit to 'passive provision' for the future Tilbury Junction, i.e., the zone should be committed to be left clear and there not being any obstructions from major earthworks, significant utility diversion routes or equipment and no significant permanent structures or features (such as bridges, balancing ponds, and other structures).</p>
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 79-86</b>		
para 97.1-97.2, 97.7-97.16	Transport	<p>Evidence has been sought from HE as to the justification for the A13 junction and its configuration. In recent correspondence, HE has suggested that any options appraisal should be proportionate. The Council agrees with this position, however, has expressed its dismay at the confusing and land hungry configuration of the proposed interchange between LTC, A13, A1089 and the local junction at Orsett Cock, and would argue that the Lower Thames Crossing has a very significant impact on the landscape of Thurrock, with consequential impacts relating to property, severance, health, air quality, noise, accessibility and economy, both in the temporary construction stage and permanent operational condition.</p> <p>A technical note has been provided by HE which gives information on the design evolution of the proposed layout but does not indicate why the interchange was proposed in the location and configuration currently being promoted. Also, the Council has not received other information requested in response to queries about model validation, or the assessment of local network and local growth, and it remains unconvinced that sufficient information has been provided to allow meaningful discussion about the optimum design of the A13 junction and local connections.</p>

Relevant Section in the You Said, We Did		The Council's Comments
		<p>There is therefore insufficient evidence provided by HE to demonstrate that the current convoluted interchange is efficient in managing the predicted traffic flows. Furthermore, the Council has significant unresolved concerns that the configuration is safe or indeed can be delivered within the envisaged Order Limits, when allowing for the many signing gantries and safety fencing and barriers which will be required to mitigate the poor layout of the linkages and connections within the interchange.</p> <p>HE, at Table 1 of its note of May 2021, repeats that the proposed interchange with A13 assists with achieving the stated objectives of the LTC project. It asserts that the proposal "supports sustainable local development and regional economic growth". The Council does not agree that the interchange achieves this and indeed it is the Council's view that the proposed arrangement sterilises land within the Borough without assisting connections. The proposals are almost entirely about strategic benefit without supporting local growth or environmentally sound travel.</p>
para 97.4, 97.26-97.30	Transport	The Council remains unconvinced that the layout of the A13/A1089/A128/LTC interchange is safe due to specific merge and weaving sections, particularly the approach to the Orsett Cock junction from the west. There are many driver decision points within the extremely convoluted layout. Each of these could cause hesitation and uncertainty and result in drivers taking wrong turns and having to travel significant distances to correct their journeys. The spacing between the complex links appears to be too narrow to allow clear informative signing or safety barriers or light deflection between adjacent links. HE must provide further justification for the layout of the interchange and not leave that detail to its contractors following DCO consent.
para 97.5, 97.31-97.37	Transport	The Council's comments and concerns on strategic local modelling cover this point.
para 97.6, 97.38-97.54	Traffic and air quality	Response summarises that no changes were made as impacts do not cause exceedance of thresholds in accordance with the LA105 methodology and relies on the CoCP for control of dust. However, the Council understand that there may be unacceptable increases on the A1013 and on Brentwood Road. However, comments on this topic cannot usefully yet be made, as the Council and others are still awaiting updated air quality modelling and assessment results.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 88-92</b>		



Relevant Section in the You Said, We Did		The Council's Comments
para 98.3-98.4, 98.11-98.26	Community and land	No comment on loss of green belt /spaces other than needing further clarity on area of permanent loss and area of compensation.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 94-99</b>		
para 100.06, 100.31-100.36	Land	<p>No comment on loss of green belt /spaces other than needing further clarity on area of permanent loss and area of compensation.</p> <p>Add mitigation measures in the form of Materials Handling Plan to ensure appropriate segregation of arising types and a soil management plan (reference appropriate guidance) to protect and reinstate soils.</p>
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 101-112</b>		
para 106.1, 107.1-107.12	Land	<p>No comment on loss of green belt /spaces other than needing further clarity on area of permanent loss and area of compensation.</p> <p>Add mitigation measures in the form of Materials Handling Plan to ensure appropriate segregation of arising types and a soil management plan (reference appropriate guidance) to protect and reinstate soils.</p>
para 106.2, 107.13-107.24	Air quality	Response summarises that no changes were made as impacts do not cause exceedance of thresholds in accordance with the LA105 methodology and relies on the CoCP for control of dust. However, the Council understand that there may be unacceptable increases on the A1013 and on Brentwood Road. However, comments on this topic cannot usefully yet be made, as the Council and others are still awaiting updated air quality modelling and assessment results.
para 106.3, 107.25-107.35	Climate	The ' <b>summary of what you said</b> ' in relation to climate change (paragraph 106.3) states 'you raised concern about the impact of the project on climate change, including additional traffic during construction and operation'. This is a short summary which doesn't capture the full scope of comments made. It should be highlighted that, as per the SoCG, other overarching concerns and comments were made in relation to:

Relevant Section in the You Said, We Did	The Council's Comments
	<p>a. The baseline conditions in relation to climate including temperatures, rainfall etc, and the use of up-to-date climate projection data;</p> <p>b. The assessment of climate change risk and adaptation measures which should be included in the design and delivery of the project;</p> <p>c. The scope of the greenhouse gas emissions assessment, including the spatial scope for the operational assessment;</p> <p>d. The proposed mitigation measures for both the construction and operational phases in relation to reducing the levels of greenhouse gas emissions within the borough and wider areas; and</p> <p>e. The construction and operational mitigation measures and how these will be secured through the DCO.</p> <p><u>Our Response</u></p> <p>Paragraph 107.25 confirms the assessment of carbon emissions includes the construction and operation of the project. Further information is needed to have a clear understanding of the spatial scope of the operational assessment of traffic, and to understand the associated assessment conclusions.</p> <p>Paragraphs 107.28 and 107.29 discuss the now published Transport Decarbonisation Plan and Highways England Net Zero Highways plan. The proposals should clearly address how the scheme will support the 6 strategic priorities set out in the Transport Decarbonisation Plan (Pages 36-37), and in particular, how the scheme will support and contribute to 1. accelerating modal shift to shift to public and active transport, 2. decarbonise road transport, and 3. decarbonise how we get our goods. The proposals now need to be reviewed in light of these plans and the associated commitments and key actions set out in the Highways England plan. LTC is a significant scheme, which will have the largest road tunnel in the UK, and cost &gt;£4bn to deliver (<a href="https://www.gov.uk/government/news/highways-england-seeks-partners-to-build-19-billion-lower-thames-crossing-roads">https://www.gov.uk/government/news/highways-england-seeks-partners-to-build-19-billion-lower-thames-crossing-roads</a> ). This new route should develop associated ambitious approaches to carbon reduction and has the potential to become a catalyst for developing zero carbon construction capacity in the region. Opportunities to realise this should continue to be explored.</p> <p>Paragraph 107.30 states that 'Despite the overall assessment conclusion, we have outlined what we are doing to reduce the carbon footprint of the project'. This statement fails to recognise the urgency of the climate emergency, and the scale of ambition required to meet net zero carbon by 2050 in the UK. As noted in our comments on the Planning</p>

Relevant Section in the You Said, We Did		The Council's Comments
		<p>Statement, as per the IEMA guidance all GHG emissions contribute to climate change and therefore might be considered significant.</p> <p>It is also noted that, beyond reducing carbon to meet our recently adopted national climate change targets, multiple benefits of taking action to reduce carbon and deliver a scheme which is resilient to the impacts of climate change are well recognised and should be priorities for the project. For example, PAS 2080 highlights that through reducing carbon, outcomes can be achieved including “a reduction in the costs of delivering and maintaining our infrastructure – driving more efficient ways of working and helping us to have an even greater impact on society and the communities that we serve”.</p> <p>Furthermore, multiple co-benefits and positive social and environmental outcomes are recognised to be delivered by decarbonising transport. For example, the Transport Decarbonisation Plan states that increased cycling and walking can reduce physical activity costs for the NHS (currently estimated at £1bn per annum), with co-benefits relating to congestion, health, air quality and noise. Improving bus services and increasing patronage can not only reduce carbon emissions, but would realise other co-benefits including congestion, jobs and growth, and air quality benefits.</p>
para 106.5, 107.43-107.50	Health	<p>The concerns are generalised and so is the corresponding response, making it difficult to understand how specific community concerns have been considered or overcome.</p> <p>The noise and air quality assessments are not up to date, making it difficult to assess impact on health and wellbeing outcomes.</p> <p>Health baseline data has not been applied or sufficiently considered with the Ward Impact Summaries (key concerns are provided within each ward summary review).</p>
<b>TABLE OF ‘SUMMARY OF WHAT YOU SAID’ AND ‘OUR RESPONSE’ page 113-120</b>		
para 112.1, 113.1-113.8	Land and communities	<p>No comment on loss of green belt /spaces other than needing further clarity on area of permanent loss and area of compensation.</p> <p>Add mitigation measures in the form of Materials Handling Plan to ensure appropriate segregation of arising types and a soil management plan (reference appropriate guidance) to protect and reinstate soils.</p>

Relevant Section in the You Said, We Did		The Council's Comments
para 112.2, 113.9-113.14	Land	<p>No comment on loss of green belt /spaces other than needing further clarity on area of permanent loss and area of compensation.</p> <p>Add mitigation measures in the form of Materials Handling Plan to ensure appropriate segregation of arising types and a soil management plan (reference appropriate guidance) to protect and reinstate soils.</p>
para 112.3-112.4, 113.15-113.26	Land and environment	<p>No comment on loss of green belt /spaces other than needing further clarity on area of permanent loss and area of compensation.</p> <p>Add mitigation measures in the form of Materials Handling Plan to ensure appropriate segregation of arising types and a soil management plan (reference appropriate guidance) to protect and reinstate soils.</p>
para 112.7, 113.41-113.42	Land	<p>As the comment relates to increasing urbanisation clarity on the provision of additional green spaces for human recreation (rather than habitat) may address this better.</p> <p>Provide the areas of temporary and permanent land take.</p>
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 123</b>		
para 121.1-121.7, 122.1-122.6	Community, air quality, land	Response summarises that no changes were made as impacts do not cause exceedance of thresholds in accordance with the LA105 methodology and relies on the CoCP for control of dust. However, the Council understand that there may be unacceptable increases on the A1013 and on Brentwood Road. However, comments on this topic cannot usefully yet be made, as the Council and others are still awaiting updated air quality modelling and assessment results.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 125-128</b>		
para 126.1-126.2, 127.1-127.10	Traffic	At the time of review of this documentation no updated supporting transport models were provided alongside this consultation, therefore, we refer to the last submitted model review document issued to HE in June 2020 (LTC Consultation - Review the Effects of the LTC within Thurrock - Sup Con Modelling Review) as well as the local junction assessments report (LTC Consultation - Junction Assessment and Mitigation Analysis issued in October 2020) undertaken to identify possible mitigation at key areas within Thurrock.

Relevant Section in the You Said, We Did		The Council's Comments
		<p>As outlined within the LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 specifically Ref 10.1 and 10.2/10.3 regarding local model validation, rat-running on local roads and enforcement thereof are still key concerns of Thurrock Council and further information regarding these aspects should be provided.</p> <p>Limited or no local mitigation measures have been identified with only a weak commitment to monitoring of junctions on the opening of the LTC. The Council remains concerned regarding commitment and funding of any local mitigation, if the monitoring shows there are impacts. Ref 10.22 provides further detail on these concerns. Also see Operation Update and Ward impact summary for further information.</p>
para 126.3-126.4, 127.11-127.14	Traffic	See comment above.
para 126.5, 127.15-127.17	Traffic	See first comment above.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 130-133</b>		
		No comments.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 135-139</b>		
para 138.3, 139.15-139.18	Traffic	The Council has responded separately on the draft Outline Traffic Management Plan for Construction (Appendix A (1)). It is noted that HE has made progress towards proposals to manage the effects of construction traffic on the local road network, however, the mechanisms for monitoring management and governance of the contractors must be reviewed and strengthened.

Relevant Section in the You Said, We Did		The Council's Comments
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 141-145</b>		
para 145.4, 146.20-146.26	Land	No comment other than rather than 'most areas' will be returned to the owner provide a percentage of the overall scheme and/or area of land acquired for utilities.
<b>Chapter 3: Supplementary consultation</b>		
para 157-158	Updating our traffic assessments	<p>The Council's concerns related to the lack of validation on the local road networks and the use of the strategic road network morning peak of (07:00-08:00) with the LTAM was not responded to and no methodology has been proposed.</p> <p>Given that the strategic LTAM is not validated on the local road network and is, in any case, not a suitable tool for testing detailed operations of specific junctions, the Council is of the view that detailed junction assessments (e.g. micro-simulation modelling, TRANSYT or JUNCTIONS 9) should be carried out at key pressure points on the network, using accurate baseline traffic data.</p> <p>In only very recent recognition that the Council is concerned about these issues (although they have been raised since 2018), HE is proposing to undertake a programme of tasks and meetings, starting with the Council's initial concerns raised since Supplementary Consultation in April 2020. HE's proposed programme covers: (1) 2016 baseline model, (2) identify areas of concern in forecasts, (3) mitigation/interventions, and (4) Local Plan Options.</p> <p>The Council has grave concerns that this engagement cannot be completed in advance of the DCO submission and would not provide HE the time to make any changes to the scheme. The Council is unable to comment on those effects until the option testing has been received and reviewed and, therefore, the Council currently remains concerned that the proposals do not recognise the importance of local sustainable growth and connectivity.</p>
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 155-171</b>		
para 178,	Construction	The Council has responded separately on the management plans which are proposed to govern the traffic and workforce travel associated with the construction period, including the Code of Construction Practice, the Outline Traffic Management Plan, the Framework Construction Travel Plan and the Outline Materials Handling Plan. As yet a

Relevant Section in the You Said, We Did		The Council's Comments
202-210		framework has not been presented for Construction Logistic Plans. The general view of the Council is that these management plans need to strengthen the commitments from HE; incentive the contractors to reduce impacts and increase environmentally sound initiatives; and set out robust mechanisms to govern the processes.
para 199, 279-289	Land	No comment on loss of green belt /spaces other than needing further clarity on area of permanent loss and the area of compensation provided.
para 200, 290-294	Transport	The Council has made representations on the appraisal of alternative connections with LTC, including to A13. These are summaries in relation to paragraph 97.1 and included in response on other consultation documents. The council does not support the current configuration of the A13/A1089/A128/LTC interchange.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 173-176</b>		
		No comments.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 178-179</b>		
para 343, 353-354	Transport and pollution	See our response to para 95.1-95.7, 95.8-93.10 within this document.  Further comments are also provided within the Operation Update and Ward Update responses. As outlined within the LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 specifically 10.6 Tilbury Link Road regarding the lack of any evidence of modelling and the recognition of the importance of the TLR on the local economy and access to a nationally important port (Port of Tilbury).
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 181-186</b>		
para 363, 369-377	Transport	As outlined within the LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 specifically Ref 10.11 option testing of the scheme, there is no further modelling evidence provided regarding the testing of this connection and if scenarios without it have been undertaken as such this remains a concern for Thurrock. Additionally, the impact of this regarding rat-running Ref 10.2 and 10.3 also remain of a concern, with journey times using Orsett Cock or Manorway roundabouts to access Greys and Tilbury being quicker than using

Relevant Section in the You Said, We Did		The Council's Comments
		Dartford Crossing Ref 10.9 of the above document. Further comments are also provided within the Operation Update and Ward Update responses.
para 364, 378-384	Transport	The Council has made representations on the A13/A1089/A128/LTC interchange. These are provided in response to other operations focused documents and the concerns about the buildability of the interchange are also raised, and not repeated here.
para 366, 390-397	Traffic	The Council has raised its concerns with the strategic and local modelling of the effects of the Project.
para 367, 398-402	Transport	The Council has made representations on the construction period management plans.
para 368, 403-406	Health and wellbeing	406. What are the environmental and community impacts of taking the alternative action and has this been assessed?
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 188-195</b>		
		No comments.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 197-199</b>		
		No comments.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 197-199</b>		



Relevant Section in the You Said, We Did		The Council's Comments
para 489-490, 495.1-495.4	Land and Order Limits	Add what the area within the Order Limit is and permanent land take area.
para 491, 495.5-495.15		The comment regarding duration of temporary land take is not addressed.  Is 'the return of land to the satisfaction of the land owner' reflected in the REAC? There is the requirement for pre and post condition surveys – maybe this statement should be amended?
para 494-495, 520-524		Clarity on area of permanent loss and area of compensation of green belt/ recreation being provided.  Add to facilitate the return of temporary land take to the original use mitigation measures will be implemented including Materials Handling Plan to ensure appropriate segregation of arising types and a soil management plan (reference appropriate guidance) to protect and reinstate soils.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 210-215</b>		
para 532, 553-562	Transport, noise and air quality	Response summarises that no changes were made as impacts do not cause exceedance of thresholds in accordance with the LA105 methodology and relies on the CoCP for control of dust. However, the Council understand that there may be unacceptable increases on the A1013 and on Brentwood Road. However, comments on this topic cannot usefully yet be made, as the Council and others are still awaiting updated air quality modelling and assessment results.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 217-225</b>		
para 571, 576-588	Climate	The ' <b>summary of what you said</b> ' in relation to climate change (paragraph 1063) includes an expanded summary on paragraph 106.3, which is welcomed. As per the comments on paragraph 106.3, we have included a summary of key SOCG issues.

Relevant Section in the You Said, We Did		The Council's Comments
		The 'response' includes an additional section on Biodiversity stating that the project will deliver 15% biodiversity net gain. These commitments are welcomed. Further tree planting and habitat creation in the Borough, and associated wider carbon sequestration and other benefits for Thurrock, should be considered where possible.
para 573, 600-610	Air quality and health	Response summarises that no changes were made as impacts do not cause exceedance of thresholds in accordance with the LA105 methodology and relies on the CoCP for control of dust. However, the Council understand that there may be unacceptable increases on the A1013 and on Brentwood Road. However, comments on this topic cannot usefully yet be made, as the Council and others are still awaiting updated air quality modelling and assessment results.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 227-231</b>		
		No comments.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 233-238</b>		
para 672, 675-685	Visual, health and noise	<p>Conclusions state that no significant negative noise impacts on properties due to realignment. Can evidence be provided to support this statement?</p> <p>676. Where is undergrounding of power lines proposed and what additional benefits does this bring? Where has it been considered and not taken forward and the rationale for this?</p> <p>682. What are the residual impacts for noise and health?</p>
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 240-245</b>		
para 711, 717-722	Traffic	See pervious comments and further comments are also provided within the Operation Update and Ward Update responses (Appendices H and G).
para 712,	Traffic	See pervious comments and further comments are also provided within the Operation Update and Ward Update responses (Appendices H and G).

Relevant Section in the You Said, We Did		The Council's Comments
723-726		
para 713, 727-729	Traffic	<p>See previous comments and further comments are also provided within the Operation Update and Ward Update responses (Appendices H and G).</p> <p>As outlined within the LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 specifically Ref 10.1 and 10.2/10.3 regarding local model validation, rat-running on local roads and enforcement thereof are still key concerns of Thurrock Council and further information regarding these aspects should be provided.</p> <p>Limited or no local mitigation measures have been identified with only a weak commitment to monitoring of junctions on the opening of the LTC. The Council remains concerned regarding commitment and funding of any local mitigation, if the monitoring shows there are impacts. Ref 10.22 provides further detail on these concerns. Also see Operation Update and Ward impact summary for further information.</p>
para 714, 730-735	Air pollution	As outlined within the LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 specifically Ref 10.16 induced traffic, and no further evidence of the impact this has been provided, additionally, the increases in travel distance, CO2 and NOx remain a serious concern, and the appraisal of variation in impacts uses large bandings and cannot be appropriate to judge the significance of impacts and changes within the ES.
para 716, 740-748	Transport	<p>Concerns remain regarding access from the LTC to the A1089 and the associated traffic impact that may have on the local road network. As outlined within the LTC Review of Transport Planning Evidence by Stantec on behalf of Thurrock Council issued in March 2021 specifically Ref 10.2/10.3 regarding rat-running on local roads and enforcement thereof are still key concerns of Thurrock Council and further information regarding these aspects should be provided.</p> <p>The Council has also raised concerns that, without recognising the importance of local connectivity, LTC does not achieve its stated objective of facilitating local growth.</p>
<b>Chapter 4: Design refinement consultation</b>		
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 254-273</b>		

Relevant Section in the You Said, We Did		The Council's Comments
para 777, 802-812	Transport	HE shows in the responses at this point that it does not consider its role to enhance the propensity of people to move by more sustainable means – such as active travel, public transport, alternatively fuelled vehicles or, indeed, to not travel at all. It states that it is single focused on relieving congestion at the Dartford Crossing. Providing a car and road freight project neglects opportunities to move towards a more sustainable future. HE is not meeting the aspirations of the NPS NN, the general sustainability agenda or the Carbon Budget.
para 779, 823-824	Flood risk	HE maintains that it is to stick to the DfT WebTAG approach, but it does not recognise that that approach is not providing evidence on the effects on severance, delays, fear and intimidation or safety. Without that assessment, the Council cannot conclude on the effects and need for mitigation.
para 796, 894-900	Transport	The Council has made representations on the need for the Tilbury Link Road. These are not repeated here.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 275-278</b>		
		No comments.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 280-283</b>		
para 961, 967-971	Traffic	See previous comments and further comments are also provided within the Operation Update and Ward Update responses (Appendices H and G).
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 285-290</b>		
para 1000, 1005-1014	Traffic	None of the modelling evidence supporting this commentary has been made available. Within 'Lower Thames Crossing A13 Junction Design Approach May 2021', HE states that an options appraisal has been undertaken as part of the preferred route selection, but the Council believes that insufficient evidence has been provided to allow stakeholders to take a view about the performance of alternative options, specifically related to the configuration of the selected Route 3 scheme (as referred to in the Statutory Consultation in 2018). The note focuses more on the reasoning behind the

Relevant Section in the You Said, We Did		The Council's Comments
		<p>linkages provided through the iterations of the interchange at A13, rather than the reasoning for the interchange and the comparative review of alternative interchanges. Unless the Council has been given the modelling evidence, and been consulted on it, the current consultation exercise will be defective.</p> <p>As previously stated, the 2016 consultation did not compare the evidence for alternative route alignments A and C, nor was evidence presented about the form of the junction between the Lower Thames Crossing and A13 (or any option testing including Tilbury Link Road). HE seems to be taking the lack of debate on these matters in previous years, and the passing into its investment strategies, as being sufficient evidence that these matters have been dealt with. The recent experience of the A303 scheme suggests that this is not a safe assumption.</p> <p>'Approach to Design, Construction and Operation' in July 2018 provides some commentary, but there is no supporting appraisal or modelling work. The reasons for removing Tilbury Link Road are not considered valid by the Council and seem to have guided HE's approach since that time, even though some reasons are now out of date</p> <p>See previous comments and further comments are also provided within the Operation Update and Ward Update responses (Appendices H and G).</p>
para 1001-1002, 1015-1025	Transport	The Council has made representations about the configuration of the A13/A1089/A128/LTC interchange. Those representations are not repeated here.
para 1003, 1026-1029	Travellers, noise and air pollution	We have not seen an assessment relating to the travellers site.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 292-296</b>		
para 1045-1046,	Utilities, construction and pollution	1065 the response in relation to the concern regarding increase in pollution due to construction activity is very superficial – please provide examples of the mitigation measures to be implemented.

Relevant Section in the You Said, We Did		The Council's Comments
1059-1070		
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 298-300</b>		
		No comments.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 302-305</b>		
para 1101, 1105-1108	Land use	As previously regarding clarity on the area within the Order Limits and the area of temporary land take.
para 1102, 1109-1115	Land use	Please provide areas for each of the ALC grades for both permanent and temporary land take.
para 1103, 1116-1121	Land use	1119 says returned to the <u>reasonable</u> satisfaction of the owner. There are a number of relevant mitigation measures regarding land in the REAC including pre and post condition surveys, five year aftercare and provision of an agricultural liaison officer that should be presented here.
para 1104, 1122-1128	Waste, visual and health	Regarding waste, the outline Site Waste Management Plan has been developed and we have made comments accordingly, the transport is covered by the comments raised on the outline Materials Handling Plan.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 307-308</b>		
		No comments.
<b>TABLE OF 'SUMMARY OF WHAT YOU SAID' AND 'OUR RESPONSE' page 310-323</b>		

Relevant Section in the You Said, We Did		The Council's Comments
para 1153, 1178-1177	Wildlife, pollutants and contaminants	Regarding the comment on pollutant/contaminants entering the River Thames additional response regarding construction phase mitigation is required.
para 1154, 1187-1197	Consultation and noise	Para 1192 mentions trees being used for screening and environmental mitigation. Trees are not considered to provide adequate noise protection with gaps etc. Please confirm if trees alone are being relied upon as mitigation.
para 1155, 1198-1209	Air quality	Response summarises that no changes were made as impacts do not cause exceedance of thresholds (discounting WHO guidelines) in accordance with the LA105 methodology and relies on the CoCP for control of dust. However, the Council understand that there may be unacceptable increases on the A1013 and on Brentwood Road. However, comments on this topic cannot usefully yet be made, as the Council and others are still awaiting updated air quality modelling and assessment results.
para 1158, 1234-1244	Health and communities	Residual health and community impacts are not communicated in this section.  The response has not addressed the specific concerns around impacts on health around schools and care homes.
<b>Chapter 5: Visualisations of the changes</b>		
<b>Chapter 6: How to have your say</b>		
<b>Chapter 7: Find out more</b>		

## 2.2 Summary and Recommendations

### Summary

- 2.2.1 This section does not provide a summary and recommendations for the You Said We Did report, as the detail is provided in the summary report and other appendices.
- 2.2.2 An overall comment about this YSWD document is that unlike the DCOv1 Consultation Report, which only acknowledged that 9 design changes had been made following 3 consultation (reported within the Council's Adequacy of Consultation response), the YSWD does the opposite.
- 2.2.3 Every single design or project change made following each of the previous consultations has now been listed and summarised in a series of Tables. In many cases, it does not appear to be the case that the reasons for a change were directly due to a consultation response, but are as a direct response to required mitigation following further impact assessments or what a result of normal design development within the project; neither of which should be attributable to responses to consultation. Overall, this is considered false and misleading and clearer reasons for changes should be set out
- 2.2.4 These claimed changes are provided in clear maps from Pages 352 – 381, but all they illustrate are changes that were reported in earlier consultations, but which are the only result of necessary scheme mitigation (such as noise barriers) or scheme design development (changes to utility diversions or the Mardyke Viaduct) and not responses to previous consultations. In addition, these maps do not show is the adequacy of some of these changes, which are challenged elsewhere in the Council's Consultation Response.
- 2.2.5 Furthermore, it is not clear from this YSWD document what additional material is offered beyond summarising the contents of the DCOv1 Consultation Report into a public facing document. This needs to be clarified.
- 2.2.6 The sub headings under which the YSWD document is structured, such as 'need for LTC', preferred route selection' 'route north of the river' are considered too broad to be helpful and do not follow the necessary Ward breakdown in the Ward Summaries, which would be more helpful.
- 2.2.7 Clearly, HE is responding to a very narrow focused objective of relieving congestion at the Dartford Crossing, potentially at the cost to local communities and with unresolved impacts. LTC helps to resolve one historic problem, but creating new ones for Thurrock. HE, in doing so, is not observing the Governments own aspirations to decarbonise the transport network and LTC scheme objectives that also include supporting sustainable local development.





## Lower Thames Crossing

Review of Your property and... compensation or mitigation for the effects  
of our road proposals

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of Your property and... compensation or mitigation for the effects of our road proposals

**Doc Ref:** Revision B

**Date:** October 2021

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<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	<i>RQ/JC</i>	<i>HC/CS</i>	<i>HC/CS</i>
B	05/10/2021	Issued to National Highways	-	<i>CB</i>	<i>CB</i>

This report has been prepared by Stantec UK Limited ('Stantec') on behalf of its client to whom this report is addressed ('Client') in connection with the project described in this report and takes into account the Client's particular instructions and requirements. This report was prepared in accordance with the professional services appointment under which Stantec was appointed by its Client. This report is not intended for and should not be relied on by any third party (i.e. parties other than the Client). Stantec accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the assessment details for the Your property and... compensation or mitigation for the effects of our road proposals.
- 1.1.2 This document sets out the Council's comments on the proposed Your property and... compensation or mitigation for the effects of our road proposals and if there are any suitable opportunities to improve this infrastructure.
- 1.1.3 The document follows the same structure as Your property and... compensation or mitigation for the effects of our road proposals and responds only to the sections relating to the north of the river.

## 2 Review of Your property and... compensation or mitigation for the effects of our road proposals

### 2.1 Comments

Table 2.1: The Council's Comments on the Your property and... compensation or mitigation for the effects of our road proposals

Relevant Section in the Your property and... compensation or mitigation for the effects of our road proposals	Summary of Highways England's Policy	Thurrock's Council's Comments on the Policy
<b>Chapter 1: Environmental Mitigation</b>		
(pg. 9)	Powers to acquire land by compulsion to carry out environmental mitigation works.	This policy goes no further than the statutory position in terms of mitigation of any environmental impact and the compensation payable if the compulsory acquisition of land is required in order to undertake mitigation works. In terms of environmental mitigation – the vital consideration is the assessment of environmental impact and the suitability and level of mitigation proposed. We look forward to more information in this regard.
<b>Chapter 2: Off-site Planting Agreements</b>		
(pg. 10-11)	Voluntary agreements with landowners to mitigate the adverse effects (e.g. noise) on land from the construction works, or the new or improved road in use, by planting and then maintaining trees, shrubs or plants on the land, or taking other mitigation measures.	It is not clear at what stage and for whom this policy might be available. For instance, it should be made clear whether it is available for all property uses and is there a qualifying level of impact required before this voluntary option becomes available? The aim of this policy seems to be to reduce the impact of the new road or construction noise due to the LTC scheme and is offered on a voluntary basis.

Relevant Section in the Your property and... compensation or mitigation for the effects of our road proposals	Summary of Highways England's Policy	Thurrock's Council's Comments on the Policy
		<p>However, the potential terms of the agreement noted within the policy impose significant inconveniences on the occupier both in terms of restricting the use of the land, maintenance obligations and a local land charge - all of which may lead to negative consequences solely due to the LTC scheme and no fault of the occupier in terms of re-sale, the local property market and most importantly the occupier's enjoyment of their property and imposed burden. Furthermore, and as is well understood, trees, shrubs and plants do not mitigate noise.</p>
<b>Chapter 3: Noise Insulation</b>		
(pg. 12-19)	<p>In line with the Noise Insulation Regulations 1975, HE includes a policy to carry out insulation work (or to make a grant for homeowners to carry out the work) in order to mitigate against noise above the 'specific level' resulting from the Lower Thames Crossing when operative or due to long exposure to excessive construction noise. In addition:</p> <ul style="list-style-type: none"> <li>a. The offer only applies only to residential dwellings;</li> <li>b. The offer applies only to dwellings that are adjacent to the works (for construction insulation);</li> <li>c. Applies only to properties within 300 metres of the new road;</li> <li>d. For construction noise, the noise level must exceed 70dB(A) Leq over long periods of the day extending over a period of months.</li> </ul>	<p>This offering follows the statutory provisions and does not include any enhanced offer.</p> <ul style="list-style-type: none"> <li>a. We would contest that the offer should be extended to all property types that can evidence a detrimental impact due to the increase in noise - for instance educational establishments, hotels or certain medical facilities could be severely impacted by road and construction noise.</li> <li>b. The distance of a property from the operational road or construction works should not be a limiting factor. If a noise assessment reveals that the property has a qualifying impact from an increase in noise, then noise insulation should be made available regardless of location. For instance, this distance trigger does not take into account vulnerable persons that might be</li> </ul>

Relevant Section in the Your property and... compensation or mitigation for the effects of our road proposals	Summary of Highways England's Policy	Thurrock's Council's Comments on the Policy
	<p>e. For noise from the new road, additional carriageway or altered highway, the noise level must be predicted to increase by a minimum of 1dB(A) and be not less than 68dB(A) L10 (18 hour) within 15 years of the new or improved road opening to public traffic.</p>	<p>more significantly impacted by an increase in noise and disturbance in their property.</p> <p>c. There is no stipulated response timeframe or procedure for claiming.</p> <p>d. It is unclear what level and type of noise mitigation will be provided and what involvement the occupier will have in that decision process. Is there a proposed sum or scope of works? Comparable major infrastructure schemes have offered noise mitigation measures costing in the region of £3,000 - £5,000 or up for a full package of sound installation – depending on the degree of noise pollution.</p>
<b>Chapter 4: Noise Payments for Movable Homes</b>		
(pg. 20-21)	<p>In line with the Noise Insulation Regulations 1975, HE includes a policy for claims that can be made for disturbance either from construction works or from traffic using the new or improved road. To qualify for a noise payment due to construction noise, the noise from the construction of a new or altered highway must have seriously adversely affected the enjoyment of a mobile home for a continuous period of six months. To qualify for a noise payment due to noise from traffic using the new or altered highway, the predicted noise level 15 years after the road opens to traffic must be not less than 68dB(A) L<sub>10</sub>(18-hour).</p>	<p>The policy includes a number of conditions some of which raise concerns and should be amended to protect residents in movable homes impacted by the LTC scheme.</p> <p>a. The movable home must be located within 300 metres of the Scheme. However, eligibility should be based on noise impact and not limited by distance from the Scheme. For instance, this distance trigger does not take into account vulnerable persons that might be more significantly impacted by an increase in noise and disturbance in their home.</p> <p>b. Compensation of £1,650 for the level of impact required in order to trigger the payment is not a fair level of compensation. This should be enhanced – for instance</p>



Relevant Section in the Your property and... compensation or mitigation for the effects of our road proposals	Summary of Highways England's Policy	Thurrock's Council's Comments on the Policy
		<p>noise insulation measures on comparable schemes have been up to a level of £3,000 - £5,000.</p> <p>c. There is no stipulated response timeframe or procedure for claiming.</p>
<b>Chapter 5: Reasonable Additional Expense to Move into Temporary Suitable Alternative Residential Accommodation</b>		
(pg. 22-25)	<p>A policy for residents that live adjacent to the site of the construction works for a new or improved highway where the physical effects of the works are causing such significant disruption and discomfort as to make their continued occupation not reasonably practicable. In this scenario, HE has a discretionary power to pay the reasonable additional expenses (the costs that exceed those that would have been incurred if the resident had continued to occupy their home) to move into 'temporary suitable alternative residential accommodation' ('TSARA') during the period of those works. TSARA will normally only be accepted:</p> <ol style="list-style-type: none"> <li>for periods of up to 5 months; and</li> <li>where the occupier's additional expenses are likely to be less than the cost of noise insulation.</li> </ol>	<p>This policy is seemingly in place as an alternative where noise insulation is deemed disproportionately expensive for the length or extent of the construction impact. As a general point, there is not enough detail or support provided within the policy.</p> <ol style="list-style-type: none"> <li>The policy is only available to occupiers living adjacent to scheme works. This does not take into account occupiers (including vulnerable persons) that might live close to but not neighbouring the works and who have also been significantly impacted – in some cases more severely.</li> <li>There is no allowance for support in maintenance of impacted properties – for instance window, building or front garden cleaning.</li> <li>There is no support for medical expenses that might arise from the increase air or noise pollution.</li> <li>No procedure or response timeframe for application is included within the policy. There is concern therefore that a resident could be living in very challenging conditions awaiting a response and living with significant uncertainty – especially as the policy notes</li> </ol>

Relevant Section in the Your property and... compensation or mitigation for the effects of our road proposals	Summary of Highways England's Policy	Thurrock's Council's Comments on the Policy
		<p>that expenses will only be reimbursed if they are agreed by HE before they are incurred.</p> <ul style="list-style-type: none"> <li>e. There is no detail on what might be a reasonable TSARA for the impacted resident – this is vital as the policy requires the impacted resident to undertake their own searches in this regard.</li> <li>f. Compensation should include the cost of any Council Tax at the resident's original property or at the TSARA and any pro rata increases in utilities. It should be made clear that all associated costs of the TSARA should also be reimbursed – for instance, if the most appropriate option is hotel accommodation then a kitchen might not be available and contributions to sustenance should be included.</li> <li>g. There should be provision within this policy to provide temporary support to local businesses that are impacted by construction work. For instance, if they have to close or suffer a reduction in trade due to road closures, diversions or access difficulties.</li> <li>h. Similar infrastructure schemes have provided assistance with recording the particular requirements of an applicant (for instance, existing accommodation and location in relation to schools and workplace) and assisting with identifying suitable relocation premises/options and removal services. This assistance should be provided within HE's policy.</li> <li>i. There should be specific consideration for categories of persons that would suffer an exacerbated impact due to</li> </ul>

Relevant Section in the Your property and... compensation or mitigation for the effects of our road proposals	Summary of Highways England's Policy	Thurrock's Council's Comments on the Policy
		noise and construction work – such as but not limited to vulnerable persons and night/shift workers.
<b>Chapter 6: Section 10 Claims</b>		
(pg. 26)		
<b>Chapter 7: Off-line Discretionary Purchase</b>		
(pg. 27)	<p>In line with Highways Act 1980, this policy sets out the options for residential property owners who may have a pressing need to sell their property and are unable to do so except at a significant loss as a result of the LTC scheme.</p> <ul style="list-style-type: none"> <li>a. Section 248 applications can be made for properties on the line of one of our proposed route options (on-line property).</li> <li>b. Section 246 applications can normally be made once the preferred route is announced for properties not on the line of the preferred route (off-line property) but the enjoyment of which is seriously affected</li> <li>c. The offer is only available to persons: <ul style="list-style-type: none"> <li>i. holding a qualifying interest (unless a section 248 application) in a property;</li> <li>ii. where reasonable efforts have been made to sell – marketed for 13 weeks with no offers received within 15% of the unaffected Market Value;</li> <li>iii. with no foreknowledge of the LTC scheme at purchase; and</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>a. This aim of a policy such as this should be to allow the local market to continue to operate in a normal manner and to provide comfort and certainty to impacted residents and local businesses. In our view, this policy does not provide that support.</li> <li>b. It is noted in the policy that this is a discretionary offer and will only be offered in exceptional circumstances – this does not provide comfort or certainty to impacted occupiers. The offer to purchase is generally time limited and subject to agreement on consideration – the time allowed does not allow for dispute resolution before expiration of the time limited offer.</li> <li>c. The offer extends to residential properties only and does not offer any support for local businesses or other use types. The policy should be extended to all with relevant land interests.</li> <li>d. Other schemes have offered further assistance to occupiers, such as Home Relocation Assistance Schemes (as well as Business Support and Relocation Schemes). This would provide helpful support to</li> </ul>

Relevant Section in the Your property and... compensation or mitigation for the effects of our road proposals	Summary of Highways England's Policy	Thurrock's Council's Comments on the Policy
	<p>iv. with a pressing need to sell and hardship.</p> <p>d. The offer if an application is successful is the unaffected MV of the property, professional fees and a disturbance payment (statutory loss payments will be considered for those applicants with properties on the preferred route).</p>	<p>impacted residents and should be included within HE policies.</p> <p>e. HE should expand this policy to create Offer Zone both along the redline of the scheme and for surrounding properties that will suffer noise and construction impacts. In addition, the hardship element of the policy should be removed. This will provide support for any local occupiers that are unable to sell their property at a reasonable unaffected market value. An Offer Zone policy if this type will enable the local market to continue to operate in a more normal manner and provide certainty and support for occupiers under the threat of noise and construction impact due to the LTC scheme. Occupiers that wish to relocate will therefore be able to – either through the usual methods if there are willing buyers in the market at the unaffected value level or to the Secretary of State. This Offer Zone policy should be actioned at the earliest opportunity so that the support is available throughout the DCO submission process.</p>
<b>Chapter 8: Part 1 Compensation</b>		
(pg. 28-29)		
<b>Fees – making a contribution towards your surveyor's, solicitor's or other professional adviser's fees</b>		
(pg. 30-33)		

Relevant Section in the Your property and... compensation or mitigation for the effects of our road proposals	Summary of Highways England's Policy	Thurrock's Council's Comments on the Policy
<b>Annex 1: Glossary</b>		
(pg. 34-35)		
<b>Annex 2: Noise Measurement</b>		
(pg. 36)		
<b>Annex 3: Table of Temporary Re-Housing Noise Trigger Levels</b>		
(pg. 37)		

## 2.2 Summary and Recommendations

### Summary

- 2.2.1 In the most part, the policy, 'Your property and compensation or mitigation for the effects of our road proposals', simply refers to and re-states legislation that provides Lower Thames Crossing with options for mitigating scheme impact both to the environmental and to local residents.
- 2.2.2 The measures for local residents include options in respect of increased noise (including planting, noise insulation and noise payments), expenses for suitable temporary moves and off-line discretionary home purchase. The policies, in most cases, do not go further than the statutory position and provide limited comfort due to their discretionary nature and lack of specific details (including application process, response timeframe and support etc.). Further no support is offered for local businesses or other property uses outside of residential.

### Recommendations

- 2.2.3 Our key recommendations in respect of each policy are set out below. In all cases, further application information should be published – for instance, there are very limited details within the policies in respect to response timeframes or procedures for claiming.

**a. Environmental mitigation**

- i. To date, no specific proposals have been provided. This will be required, and detailed engagement will be necessary in respect of the same, in order to assess the level of mitigation proposed, suitability and whether the proposals are sufficient.

**b. Off-site planting agreements**

- i. Clarity is required on whether this is available for all property uses and whether there is a qualifying level of impact.
- ii. The burden should be taken off of the landowner in terms of maintenance and restriction of land use.

**c. Noise insulation**

- i. The offer should be extended to all property types that can evidence a detrimental impact due to the Scheme.
- ii. The distance of a property from the operational road or construction works should not be a limiting factor.
- iii. Information should be published clarifying what level and type of noise mitigation will be provided.

**d. Noise payments for moveable homes**

- i. Eligibility should be based on noise impact and not limited by distance from the Scheme.
- ii. The compensation level proposed is not a fair level and should be enhanced.

**e. Reasonable additional expenses to move into temporary suitable alternative residential accommodation**

- i. The Policy should not be limited to adjacent properties only.
  - ii. Other comparable schemes have provided additional support in this regard, such as: assistance with identifying a suitable TSARA; support to local businesses; additional considerations such as related medical expenses; exterior home maintenance; and enhanced support for vulnerable persons and shift workers.
- f. **Off-line discretionary purchase:**
  - i. An Offer Zone should be created within the Scheme red-line with any hardship requirement removed. This will provide certainty for landowners within the impacted area and will help combat any market stagnation.
  - ii. The offer should relate to all property types and both a Home Relocation Assistance Scheme and a Business Support and Relocation Scheme should be offered, in line with offerings on comparable infrastructure schemes.



## Lower Thames Crossing

Review of Thurrock's Land Interests

On behalf of **Thurrock Council**





## Document Control Sheet

**Project Name:** Lower Thames Crossing

**Project Ref:** 43879

**Report Title:** Review of Thurrock's Land Interests

**Doc Ref:** Revision B

**Date:** October 2021

	Name	Position	Signature	Date
<b>Prepared by:</b>	Rob Quaile	CBRE Ltd	<i>RQ</i>	August 2021
	James Connor	CBRE Ltd	<i>JC</i>	August 2021
<b>Reviewed and Approved by:</b>	Henry Church	Senior Director CBRE Ltd	<i>HC</i>	September 2021
	Chris Stratford	Consents and DCO Senior Consultant	<i>CS</i>	September 2021
<b>For and on behalf of Stantec UK Limited</b>				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	<i>RQ/JC</i>	<i>HC/CS</i>	<i>HC/CS</i>
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# 1 Introduction

## 1.1 Overview

- 1.1.1 Our review of Thurrock Council's land interests has identified 174 land parcels that are impacted by the Lower Thames Crossing scheme ("the Scheme"). The Statement of Reasons ("SoR") and Map Books 1, 2 & 3 titled "Proposals for Consultation: Lower Thames Crossing Community Impacts Consultation" which inform the most recently provided draft DCO application dated June 2021 version 0.1, identify three types of parcel that will be affected by the Scheme. These are categorised as:
- i. permanent;
  - ii. temporary; and
  - iii. rights required parcels.
- 1.1.2 We have tried to arrange detailed engagement meetings with Lower Thames Crossing but these have yet to commence. Our responses are subject to change depending on the outcomes of those engagement meetings. A summary of our comments to date are set out below.
- 1.1.3 We note that there have been changes to the Order limits between DCOv1 and the current plans set for consultation. CBRE have carried out a review of the two versions to identify and assess scheme impacts. Whilst there are some minor changes to some parcel requirements, this would likely have a nominal impact to the overall compensation estimate. There are two parcels that have had notable changes to requirements; EX228905 (DCO Plot Ref 26-03) and EX783068 (DCO Plot Ref 26-78) and both of these revisions reduce the impact of the Scheme on the land.

## 2 Review of Thurrock's Land Interests

### 2.1 Permanent Parcels

- 2.1.1 CBRE has identified a total of 61 parcels required on a permanent basis, with 23 of these being highways land. The majority of land registered to Thurrock Council is classified as amenity land and verges, with additional parcels incorporating playing fields and residential land.
- 2.1.2 The SoR provides limited justification in respect of the requirement for the permanent acquisition of Thurrock Council land to facilitate the Scheme. The majority of land required on a permanent basis is needed for highways improvement, realignment and construction works - namely the A13 and A112 roads – but there is no visibility on the case on a plot-by-plot basis. Utilities works are also listed as a reason for permanent acquisition in respect to a small number of parcels.
- 2.1.3 As stated above, there are limitations in the information provided and level of detailed justification within the SoR. It is understood that this may be due to the early stage of the project and consultation – however, it is imperative that detailed engagement takes place that provides further information on the required land takes, design justification in respect of the Scheme, the impact of road access due to permanent acquisition, proposed re-provision of public open space, environmental mitigation and any impact on agricultural land. To date this engagement has not taken place.
- 2.1.4 We have specific concerns and site-specific queries on the follow sites which would require enhanced engagement.

#### Land to the West of Gammonfields Way

- 2.1.5 This 41,124 sqm site currently houses a community of travellers and their homes. The reasons for acquisition include the new A13 westbound link roads, the construction of a new bridge to carry the new link road and utility works, including the installation or diversion of underground utilities within a multi-utility corridor and the diversion or modification of overhead lines.
- 2.1.6 Our initial assessment of compensation assumes that all costs related to the relocation of the site and site utilities will be reimbursed by Highways England. Confirmation of this assumption is required as well as additional details in terms of support in terms of any disturbance costs that might arise and timings for the site move. The support of the community at this site is of vital importance as the Scheme has caused significant uncertainty and we would welcome further details of what support will be provided.

#### Land at A13, Orsett Grays

- 2.1.7 This parcel is the largest permanent acquisition by size, with an area of 63,036 sqm. The SoR details that the acquisition is justified in order to improvements of the existing A13 dual carriageway and due to the necessary diversion of high-pressure gas utility. In this instance, given the size of the land being sought, greater detail is required to understand the road and traffic impacts of acquisition and re-provision of access to existing roads.

#### Public Highway, Footway and Verge (Baker Street, B118)

- 2.1.8 This parcel is 2,253 sqm and is the proposed acquisition is justified within the SoR as contributing to the new A122 Lower Thames Crossing highway, with three-lane carriageways in both directions. Given that these parcels are required on a permanent basis, further

information is required on Stanford Road ownership and modelled traffic impact is necessary as this acquisition seems to involve part of the main road in addition to the verge.

## 2.2 Temporary Parcels

- 2.2.1 The Thurrock Council impacted land review exercise, has identified 16 parcels required on a temporary basis, with 11 of those being highways land. The majority of the Thurrock Council registered land can be classified as verges.
- 2.2.2 Again, the SoR provides limited justification for the compulsory temporary possession powers being sought. The majority of the parcels are required on a temporary basis for access, including provision of a temporary means of access to environmental mitigation works, and provision for temporary access and traffic management for the compound facilitating highways construction, utility works and landscaping. There are a number of temporary possession that are required in association with rights being acquired and these are commented on briefly in the Rights section. Some specific reasons for acquisition include remedial works at the A13 and Mardyke viaduct and compound works at the M25 junction.
- 2.2.3 As with the permanent parcels, there are limitations with the information provided in the SoR. In the case of temporary acquisition, we require more information on
- i. the anticipated dates that temporary possession will be taken;
  - ii. the construction timeframe;
  - iii. how long possession is required for and the extent to which the timescale is binding;
  - iv. details of any anticipated impact or damage to the parcels and mitigation of disruption (including road closures and temporary traffic lights); and
  - v. details as to the condition that the land will be in on return.
- 2.2.4 We have highlighted the following site-specific queries.

### Land at Fort Road, Tilbury

- 2.2.5 This 19,433 sqm parcel consisting of verge and grassland is required for the provision of temporary access and traffic management for the compound at the north portal of the bored tunnels, including remedial works required to facilitate access. Alongside needing further clarification of the date and length of the possession and the anticipated impact of possession on the land we require detailed engagement on the following queries:
- i. potential closure of Fort Road;
  - ii. closure of the cycle path providing access to Tilbury fort and marshes
  - iii. anticipated impact to World's End Estate and surrounding units; and
  - iv. environmental impact of construction and associated compounds such as to the trees on the identified temporary possession area.

## 2.3 Rights Parcels

- 2.3.1 The remainder of the compulsory powers being sought over Thurrock Council land are in respect of the permanent acquisition of rights. We have identified a total of 97 parcels required on this basis, with 63 of those parcels being highways land. The majority of the parcels can be

classified as verge or amenity land but there are some parcels where rights are being sought in regard to (and adjacent to) public buildings and residential land.

2.3.2 The SoR has provided a variety of justifications of acquisitions of rights and these can be grouped into:

- i. utilities rights;
- ii. diversions of utilities; and
- iii. installation of underground utilities.

2.3.3 There are additional cases where overage rights are required for the diversion or modification of overhead lines, including rights and restrictive covenants to construct, protect operate, access and maintain.

2.3.4 At this stage, the SoR and lack of detailed engagement means that the information provided lacks the granularity required to inform a compensation assessment or to understand the actual impact of the proposed use of powers. In addition, we have not received enough detail where temporary possessions are required in respect of Rights acquisitions – including in respect to the specific area of land required for the temporary possession, which section of that land will be impacted by the Rights required and the timeframe and length of these works. Overall, we require further information from Lower Thames Crossing in respect of:

- i. the length of access required and date of the proposed works;
- ii. if there is any damage or impact anticipated;
- iii. the specific location of impact and design justification;
- iv. the local disruption anticipated and mitigation and local support proposed; and
- v. how the rights will be acquired and documented.

## 3 Summary and Recommendations

### Summary

- 3.1.1 Our review of Thurrock Council's land interests has identified 174 land parcels that are impacted by the Lower Thames Crossing scheme. The Statement of Reasons and Map Books 1, 2 & 3 which inform the most recently provided draft DCO application dated June 2021, identify three types of parcel that will be affected by the Scheme. These are categorised as
- i. Permanent
    - a. 61 impacted parcels.
    - b. The majority of land registered to Thurrock Council in this category is classified as amenity land and verges, with additional parcels incorporating playing fields and residential land.
  - ii. Temporary
    - a. 16 impacted parcels.
    - b. The majority of the parcels are required on a temporary basis for access and can be classified in the most part as verges of highways land.
  - iii. Rights
    - a. 97 impacted parcels.
    - b. The majority of the parcels can be classified as highways verge or amenity land but there are some parcels where rights are being sought in regard to (and adjacent to) public buildings and residential land.
    - c. A large number of the Rights acquisitions have an associated temporary possession being sought in order to facilitate the relevant Rights works and/or acquisition.

### Recommendations

- 3.1.2 The Statement of Reasons includes some (limited) justification and explanation for the sought compulsory powers and land requirement. However, this document is light on detail including (*inter alia*) on design justification, mitigation proposed, predicted local impact, acquisition dates and exact land take and timeframe for temporary possessions. It is hoped that this further information can be provided in detailed engagement meetings between the parties.
- 3.1.3 We have tried to arrange these detailed engagement meetings with Lower Thames Crossing, but these have yet to commence and it is vital that these commence at the earliest opportunity. Our responses are subject to change depending on the outcomes of those engagement meetings.





## Lower Thames Crossing

Utilities Response

On behalf of **Thurrock Council**



## Document Control Sheet

**Project Name:** Lower Thames Crossing

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# 1 Introduction

## 1.1 Overview

- 1.1.1 As part of its technical engagement relating to the proposed Lower Thames Crossing (LTC) Development Consent Order (DCO) application, Highways England (HE) has issued Thurrock Council (the Council) with the assessment details for the Utilities Response.
- 1.1.2 This document sets out the Council's comments on the Utilities Response and if there are any suitable opportunities to improve this infrastructure.
- 1.1.3 This technical note reports the findings of a review undertaken of the previously submitted (now withdrawn) A122 Lower Thames Crossing (LTC) Development Consent Order (DCOv1) (October 2020) and of LTC Non-Statutory Consultation Documents (July 2021) in relation to the consideration of utilities diversions, which themselves constitute Nationally Significant Infrastructure Projects (NSIPs). The review contributes to the wider scrutiny by Thurrock Council of the LTC DCOv1 (October 2020) and emerging proposals for a future revised LTC DCOv2 application, in order to identify deficiencies and provide recommendations to improve the DCO.

## 2 Purpose and Structure

### 2.1 Purpose

- 2.1.1 Thurrock Council has consistently opposed HE's current LTC scheme ('the Project') due to the negative economic, social, engineering and environmental impacts that it will have upon the borough, as well as the constraints it will place upon future growth. This includes construction and operational phase impacts from proposed utilities diversions, which the Council specifically raised concerns about in responses to HE's consultations prior to submission of the DCO application. The Council's main substantive concerns regarding proposed utilities diversions relate to the extent of land-take required and likely impacts on communities and existing infrastructure, including in terms of disruption and safety. Thurrock Council together with other affected local authorities and consultees also previously raised wider concerns regarding environmental and planning impacts from proposed utilities diversions. We acknowledge that some improvements have been made over the past year, but still seek further improvements/mitigations.
- 2.1.2 To inform Thurrock Council's engagement with HE and position in respect of a revised LTC DCO application, a high-level review of HE's assessment of proposed utilities diversions (including design, environmental impacts and mitigation) has been undertaken. This review has considered both the LTC DCOv1 (October 2020) and emerging proposals (July 2021) for a future revised DCO application. The review focused on assessing compliance with relevant Energy National Policy Statements (NPS), specifically EN-1, EN-4 and EN-5, in respect of proposed utility diversions which themselves constitute NSIPs. However, in doing so the review also identified weaknesses within the approach adopted by HE in their assessment of proposed utilities diversions more generally. Review findings have informed the development of recommendations to improve how utilities diversions and associated impacts are addressed in any future revised LTC DCO, as set out at the end of this note.

### 2.2 Structure

- 2.2.1 The remainder of this note is structured, as follows:
- Section 3 provides an overview of relevant information and assessment requirements set out within relevant Energy NPS which are engaged by virtue of the Project including proposed utilities diversions which themselves meet applicable thresholds to qualify as NSIPs;
  - Section 4 sets out findings from the review of the LTC DCOv1 (October 2020), including specific comments in respect of individual proposed utility NSIP diversions and general comments regarding the approach adopted by HE;
  - Section 5 sets out findings from the review of utilities NSIPs coverage in Non-Statutory Consultation documentation; and
  - Section 6 provides a suite of recommendations based on the review findings to inform emerging proposals for a future revised LTC DCO application. These recommendations seek to address identified weaknesses and deficiencies in order to improve the application.

## 3 Relevant National Policy Statements

### 3.1 Overview

- 3.1.1 The Project as described in the submitted LTC DCOv1 (October 2020) included one overhead line diversion NSIP and four gas pipeline diversion NSIP's to be undertaken by the Applicant. Resultantly, the overarching National Policy Statement (NPS) for Energy (EN-1), NPS for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4), and NPS for Electricity Networks Infrastructure (EN-5) are relevant considerations for the Secretary of State (SoS) when considering the application.
- 3.1.2 The DCOv1 application (2020), including Planning Statement (App. 7.2), has been reviewed against the information requirements and key policy tests set within the identified NPS as discussed below.

### 3.2 Information Requirements

- 3.2.1 EN-1 sets out the Government's policy on energy and infrastructure development as well as the need for new nationally significant energy. It also covers the cross-NPS Assessment Principles and Generic Impacts which are reflected across the wider suite of NPSs. EN-4 and EN-5 are described as 'technology specific', simply meaning they relate to a particular form of infrastructure. In the case of EN-4, this relates to gas supply and gas and oil pipelines; EN-5 relates to electricity networks. EN-4 and EN-5 sit under the umbrella of EN-1 but draw out specific assessment criteria which are bespoke to their technology. Key policy tests are discussed further below.
- 3.2.2 A number of the information requirements for EN-1, EN-4 and EN-5 are the same as those set out within NPSNN. The below outlines a number of the key information requirements however this is not an exhaustive list:

#### EN-1

- Projects that are subject to the European Environmental Impact Assessment Directive must be accompanied by an ES describing the aspects of the environment likely to be significantly affected by the project;
- The ES should include an assessment of the biodiversity and landscape and visual effects of the proposed route and of the main alternative routes considered;
- The ES should provide information on how the effects of the applicant's proposal would combine and interact with the effects of other development (including projects for which consent has been sought or granted, as well as those already in existence);
- Applicants are obliged to include in their ES, as a matter of fact, information about the main alternatives they have studied; and,
- Applicants are required to undertake desktop surveys to identify historic or current mine workings, underground cavities serving industrial usage, the nature of any made ground, waste sites, unexploded ordnance, utility services and any other below surface usage when assessing routes for a pipeline.

#### EN-4

- Applicants should undertake desktop surveys to identify historic or current mine workings, underground cavities serving industrial usage, the nature of any made ground, waste

sites, unexploded ordnance, utility services and any other below surface usage when assessing routes for a pipeline;

- When choosing a pipeline route, applicants should seek to avoid or minimise adverse effects from usage below the surface; and,
- Mitigation measures to minimise any adverse effects on soil and geology should include measures to ensure that residual impacts on the surface are minor and include appropriate treatment of soil.

## EN-5

- Wherever the nature or proposed route of an overhead line proposal makes it likely that its visual impact will be particularly significant, the applicant should have given appropriate consideration to the potential costs and benefits of other feasible means of connection or reinforcement, including underground and sub-sea cables where appropriate. Details regarding the consideration of such measures or how the costs of mitigation have been calculated, is to be presented;
- Concerns of the potential adverse landscape and visual effects of a proposed overhead line are to be balanced against other relevant factors, including the need for the proposed infrastructure, the availability and cost of alternative sites and routes and methods of installation (including undergrounding); and,
- Guidelines for the routing of new overhead lines, the Holford Rules<sup>11</sup>, are cross referenced highlighting the need for utility diversions to also have regard to potential impacts on residential areas as well as ensuring customer supply is maintained.

3.2.3 Whilst a number of the information requirements for EN-1, EN-4 and EN-5 are the same as those set out within NPSNN, these need to be addressed directly for the proposed utilities NSIP diversions within the Project. The relevant energy NPSs may impose specific requirement which needs to be considered and therefore upheld. As an example, applicants are obliged to include in their ES, as a matter of fact, information about the main alternatives they have studied. The relevant energy NPSs also impose a policy requirement to consider alternatives and in some circumstances, there are specific legislative requirements as those under the Habitats Directive.

3.2.4 Whilst Part 5 of EN-1 sets out policy on the assessment of impacts which are common across a range of technologies (generic impacts), EN-4 and EN-5 set out a number of bespoke impacts. The requirements set out in EN-4 and EN-5 are additional to those on generic impacts set out in EN-1 and do not replace them. Additional technology-specific considerations set out in EN-4 and EN-5 include the following, however this is not an exhaustive list:

## EN-4

- Climate change resilience measures including how the proposal would be resilient to:
  - Increased risk of flooding;
  - Effects of rising sea levels and increased risk of storm surge;
  - Higher temperatures;
  - Increased risk of earth movement or subsidence from increased risk of flooding and drought; and,
  - Any other increased risks identified in the applicant's assessment.



## EN-5

- Biodiversity and Geological Conservation;
- Landscape and Visual;
- Noise and Vibration; and,
- Electro-magnetic Fields.

3.2.5 Applicants are required to assess all likely significant effects of their proposals, including bespoke elements within the NPS's.

## 3.3 Key Policy Tests

3.3.1 There a number of policy tests set out within the NPSNN, which are detailed within the NPS's. EN-1, EN-4 and EN-5 do however contain a number of bespoke key policy tests including the following, however, this is not an exhaustive list:

## EN-1

- Consideration of alternatives;
- Climate change adaptation;
- Air quality and emissions;
- Costal change;
- A presumption in favour of the conservation of designated heritage assets; and,
- Requirement for applicants to consult the local community on their proposals to build on open space, sports or recreational buildings and land.

## EN-4

- Hazardous substances.

## EN-5

- Individual impacts from individual diversions;
- Undergrounding;
- Climate change adaptation; and,
- Consideration of in-combination effects.

3.3.2 The DCOv1 application needs to demonstrate compliance with policy tests within the NPSNN and bespoke policy tests detailed within the NPS's. EN-1, EN-4 and EN-5.

## 4 Review of Utilities NSIPs Coverage in LTC DCO Rev 1

### 4.1 Overview

- 4.1.1 To provide an assessment of how the proposed utilities NSIP diversions have been considered within the DCOv1 application (2020), documentation submitted as part of the application has been reviewed.
- 4.1.2 The main DCO documents which include content directly regarding the proposed utilities NSIP diversions within the Project are:
- Schedule 1 of the draft DCO (App 3.1);
  - Explanatory Memorandum (App. 3.2);
  - Environmental Statement (App. 6.1);
    - ES Appendix 2.1 (Construction Supporting Information);
    - ES Appendix 1.3 (Assessment of Proposed Gas Pipeline Works for the purposes of Section 20 of the Planning Act 2008);
  - Environmental Statement Non-Technical Summary (App. 6.4);
  - Planning Statement (App. 7.2); and,
  - Design Principles (App.7.5).
- 4.1.3 In addition, the main body of the Planning Statement (App. 7.2) sets out the qualification of NSIPs (section 1.5) with paragraph 1.5.4 setting out the qualification criteria of the OHL works. Paragraph 2.5 of the Explanatory Memorandum (App.3.2) details the overhead electric line NSIP as being Work No. OH6. The full set of proposed utilities diversions including NSIPs and Associated Development is detailed within Schedule 1 of the draft DCO (App 3.1).

### 4.2 NSIP Specific Comments

- 4.2.1 This section identifies the utilities NSIP diversions proposed by the Applicant (based on HE's analysis of NSIPs thresholds) and provides comments regarding how they were considered within the DCOv1 application (2020). Whilst all proposed utilities NSIP diversions are described below, comments regarding assessment and mitigation matters are only made in respect of diversions within or otherwise likely to affect the Thurrock Council area.

#### **NSIP 1 - Works No. G2**

##### Contextual Information

- 4.2.2 NSIP 1 - Works No. G2 is named as "Feeder 5 Phase 1 (LTC asset schedule reference G-NG-HP-0001)" and is within the ownership of National Grid Gas Plc. The proposed gas pipeline is to extend 0.125km extending from grid reference (starting point) Easting: 566379 and Northing: 170326 adjacent to Claylane Woods in Gravesham, Kent to Easting: 566490 and Northing: 170377 within Claylane Woods in Gravesham, Kent (end point).
- 4.2.3 Table 1.1 of Appendix 1.3 (App. 6.3) identifies G-NG-HP-0001 (Feeder 5 Phase 1) Works No. G2 as qualifying as a NSIP in its own right owing to generating likely significant environmental

effects and satisfying other NSIP thresholds (refer to Section 4 for comments on the NSIP screening approach).

- 4.2.4 Annex 1 of the Explanatory Memorandum (App. 3.2) provides the required information under regulation 6(4) in respect of each work which constitutes a gas pipeline NSIP to which that regulation applies.

Assessment of Effects

- 4.2.5 No comment to make as proposed utilities infrastructure is not within Thurrock.

Mitigation & Monitoring

- 4.2.6 No comment to make as the proposed utilities infrastructure is not within Thurrock.

**NSIP 2 - Works No. G3**

Contextual Information

- 4.2.7 NSIP 2 - Works No. G3 is named as "Feeder 18 (LTC asset schedule reference G-NG-HP-0003)" and is within the current ownership of National Grid Gas Plc. The proposed gas pipeline is to extend 1.5km extending from grid reference (starting point) Easting: 566484 and Northing: 170280 within Claylane Woods in Gravesham, Kent to Easting: 567487 and Northing: 171021 north of Shorne Ifield Road in Gravesham, Kent.
- 4.2.8 Table 1.1 of Appendix 1.3 (App. 6.3) identifies G-NG-HP-0003 (Feeder 18) Works No. G3 as qualifying as a NSIP in its own right owing to generating likely significant environmental effects and satisfying other NSIP thresholds (refer to Section 4 for comments on the NSIP screening approach).
- 4.2.9 Annex 1 of the Explanatory Memorandum (App. 3.2) provides the required information under regulation 6(4) in respect of each work which constitutes a gas pipeline NSIP to which that regulation applies.

Assessment of Effects

- 4.2.10 No comment to make as the proposed utilities infrastructure is not within Thurrock.

Mitigation & Monitoring

- 4.2.11 No comment to make as the proposed utilities infrastructure is not within Thurrock.

**NSIP 3 - Works No. G4**

Contextual Information

- 4.2.12 NSIP 3 - Works No. G4 is named "Feeder 5 Phase 2 (LTC asset schedule reference G-NG-HP-0002)" and is within the current ownership of National Grid Gas Plc. The proposed gas pipeline is to extend 2.85km from grid reference (starting point) Easting: 19956779.4 56 566749 and Northing: 170833 to the south of Astra Drive in Gravesham, Kent to Easting: 568359 and Northing: 172221 to the south of A226 Gravesend Road and St Mary's Church in Gravesham, Kent.
- 4.2.13 Annex 1 of the Explanatory Memorandum (App. 3.2) provides the required information under regulation 6(4) in respect of each work which constitutes a gas pipeline NSIP to which that regulation applies.

- 4.2.14 Table 1.1 of Appendix 1.3 (App. 6.3) identifies G-NG-HP-0002 (Feeder 5 Phase 2) Works No. G4 in its own right owing to generating likely significant environmental effects and satisfying other NSIP thresholds (refer to Section 4 for comments on the NSIP screening approach).

Assessment of Effects

- 4.2.15 No comment to make as the proposed utilities infrastructure is not within Thurrock.

Mitigation & Monitoring

- 4.2.16 No comment to make as the proposed utilities infrastructure is not within Thurrock.

**NSIP 4 - Works No. G6**

Contextual Information

- 4.2.17 NSIP 4 - Works No. G6 is named as "HP8 (LTC asset schedule reference G-CG-HP-0008)" and is within the current ownership of Cadent Gas Limited. The proposed gas pipeline is to extend 5.2km extending from grid reference (starting point) Easting: 566078 and Northing: 181450 to the north of A1013 Stanford Road in Thurrock, Essex to Easting: 562151 and Northing: 181373 to the north of Stifford Clays Road and east of Green Lane in Thurrock, Essex.
- 4.2.18 Table 1.1 of Appendix 1.3 (App. 6.3) identifies G-CG-HP-0008 (HP8) Works No. G6 in its own right owing to generating likely significant environmental effects and satisfying other NSIP thresholds (refer to Section 4 for comments on the NSIP screening approach).
- 4.2.19 Annex 1 of the Explanatory Memorandum (App. 3.2) provides the required information under regulation 6(4) in respect of each work which constitutes a gas pipeline NSIP to which that regulation applies.

Assessment of Effects

- 4.2.20 ES Chapter 3 – Assessment of Reasonable Alternatives (App 3.1) notes that four diversion options were considered for NSIP 1 - Works No. G6 (HP8) of which Option 2 was selected due to routing away from the Project, avoiding a historic landfill and providing good maintenance access. The evaluation of the four options only references technical constraints as having been considered but significant adverse environmental (heritage) effects are then introduced at the point of confirming the selection of Option 2. No consideration is given within the appraisal of the other options to heritage or other environmental constraints.
- 4.2.21 The likely significant adverse effects presented in Table 1.1 of Appendix 1.3 (App. 6.3) against corresponding NSIPs provides an indication of relationships between cultural heritage assets and specific NSIPs. However, ES Chapter 6 (App. 6.1) is not clear in this distinction as utilities are only discussed in general terms, without clarifying which elements comprise individual utilities NSIPs or Associated Development.

*Construction Phase Effects – Adequacy & Robustness*

- 4.2.22 Table 1.1 of Appendix 1.3 (App. 6.3) identifies a range of likely significant adverse effects as a result of the utility diversions. Upon reviewing ES Chapter 6 (App. 6.1), paragraphs (6.6.89) permanent construction phase effects are predicted on the 'Springfield' style enclosure and Iron Age enclosures south of Hill House, Baker Street (SM7). A small proportion of the scheduled area, at the eastern end, it noted as being with the working area for buried utilities diversions. As raised above however, with the exception of effects presented in Table 1.1 of Appendix 1.3 (App. 6.3) against corresponding NSIPs, ES Chapter 6 (App. 6.1) does not identify the effect to be directly related to NSIP 4 – Works No. G6.

- 4.2.23 Upon reviewing ES Chapter 6 (App. 6.1), the effect on this asset a moderate magnitude impact on this high value asset, resulting in a moderate adverse effect after mitigation, which is significant. This conclusion is however within the context of the associated non-designated high value Bronze Age (2108) and Iron Age (2078) cropmark complexes that surround the scheduled area, which are also identified to be physically impacted by the utility diversion. This impact is not cross-referenced in Table 1.1 of Appendix 1.3 (App. 6.3) however it is concluded in paragraph 6.6.94 as a moderate magnitude impact and residual moderate adverse effect, which is significant in the context of the EIA Regulations. Additionally, Table 6.8 of ES Chapter 6 (App. 6.1) identifies several other significant construction phase effects however it is unclear whether these are associated with utilities diversions (whether the proposed utilities NSIP diversions or Associated Development).

#### *Operational Phase Effects – Adequacy & Robustness*

- 4.2.24 Table 6.8 in ES Chapter 6 – Cultural Heritage identifies several significant operational phase effects however the Chapter is unclear as to whether these are related to the utilities works, whether that for elements comprising the proposed utilities NSIP diversions or associated development.

#### Mitigation & Monitoring

- 4.2.25 No specific mitigation proposed for NSIP 4 - Works No. G6 beyond general Project-wide mitigation (discussed under the 'Mitigation and Monitoring' subheading below).

#### **NSIP 5 - Works No. OH6**

#### Contextual Information

- 4.2.26 The Planning Statement (App. 7.2) sets out the qualification of NSIPs (section 1.5) with paragraph 1.5.4 setting out the qualification criteria for electrical transmission OHL works. The installation of an electric line above ground near the A13 is considered to meet all relevant thresholds and thus constitute a NSIP in its own right. Work No. OH6 is located in proximity to Claylane Wood. It runs laterally from approximately 2.5km east of Hornsby Lane before turning north for approximately 700m (See sheets 21, 24, 25, 26, 30, 35 and 39 of the Works Plans (App. 2.6)).
- 4.2.27 Schedule 1 of the draft DCO (App 1.3) lists six other numbered OHL works (OH1 – 5 and OH7). These are assumed not to qualify as NSIPs in their own right and thus form Associated Developments.

#### Assessment of Effects

- 4.2.28 No comment to make as the proposed utilities infrastructure is not within Thurrock.

#### Mitigation & Monitoring

- 4.2.29 No comment to make as the proposed utilities infrastructure is not within Thurrock.

### **4.3 General Comments**

#### **Identification of Proposed Utilities Diversions within LTC DCO Application**

- 4.3.1 The review of each of the proposed utilities NSIP diversions outlined above and the ability to understand the likely effects (thus acceptability) of all proposed utilities diversions has been hindered by:

- a. Inadequacy of reporting in respect of individual utilities diversions, especially within technical assessment chapters of the ES. For example, the assessment section within Chapter 9 – Biodiversity includes three general references to ‘utilities diversions’ as contributing to or generating likely significant effects, without identifying which diversions are responsible (thus it is also not possible to confirm whether these effects arise from the proposed utilities NSIP diversions or Associated Development elements of the Project). In consequence it is not possible to cross-reference the design of individual diversions and any alternatives considered (as detailed within ES Chapter 3 – Assessment of Reasonable Alternatives) with effects identified from the Project including proposed utilities diversions in technical assessment chapters of the ES, or to understand the extent of likely impacts from utilities diversions specifically within Thurrock (or any other geographically discrete area); and,
  - b. Absence of consistent referencing and descriptions even where individual diversions are discussed. Schedule 1 of the draft DCO (App 3.1) and the corresponding Works Plans (App. 2.6) appear to be the only places where each diversion is identified in full as a numbered work. It is particularly problematic that EIA Appendix 1.3 Table 1.1, ES Table 2.11, ES paragraph 2.4.21 (description of ‘more complex’ diversions) and ES Appendix 2.1 (Construction Supporting Information) do not adopt consistent references (e.g. numbered works from the draft DCOv1) as these are the only places where the utilities diversions are described in detail.
- 4.3.2 This lack of clarity prevents the reader from gaining a full understanding of exactly what utilities diversions are required and where, design considerations which informed their individual development and consideration of alternatives, and the extent of likely environmental effects which individual diversions would either contribute to or generate. The ES at paragraph 4.1.1 states that the assessment of likely significant effects reported is based on the description of the Project in ES Chapter 2 – Project Description, yet as above this high-level description (especially Table 2.11) is inconsistent with the set of individual utilities diversions listed as numbered works within the draft DCO (App 3.1). Taken together, this means the LTC DCOv1 (October 2020) provides inadequate information regarding the characteristics and assessment of likely environmental effects from proposed utilities diversions (including but not limited to those which qualify as NSIPs in their own right).
- 4.3.3 It is acknowledged that the ES (App. 6.1)<sup>1</sup> considers the utilities diversion works as split into two classifications,
- a) Non-contestable utilities work which can only be undertaken by the utilities providers and their contractors. This includes network design, connections to their network and strategic asset diversions; and,
  - b) Contestable utilities work which can be undertaken by the Applicant.
- 4.3.4 These classifications do not have a material bearing on EIA reporting, but are of potential relevance to the implementation of mitigation measures by contractors appointed by HE or other parties, as detailed below.

## **Classification of NSIPs and Associated Development**

### Utilities NSIPS

#### *Gas Pipelines*

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<sup>1</sup> As detailed in ‘Application Document: 6.1 Environmental Statement, Chapter 2 Project Description’ (paragraph 2.4.118).

- 4.3.5 Table 1.1 of Appendix 1.3 (App. 6.3<sup>2</sup>) provides HE's determination which of the 27 proposed gas transporter pipeline works are NSIPs. Ten pipelines satisfy the minimum 7 bar (pressure) threshold and other design related NSIP thresholds, of which the following four have been assessed through a qualitative screening process as being likely to result in likely significant effects on the environment and therefore qualify as NSIPs:
- G-NG-HP-0001 (Feeder 5 Phase 1) Works No. G2;
  - G-NG-HP-0003 (Feeder 18) Works No. G3;
  - G-NG-HP-0002 (Feeder 5 Phase 2) Works No. G4; and,
  - G-CG-HP-0008 (HP8) Works No. G6.
- 4.3.6 The reporting deficiencies identified above regarding lack of consistent referencing and inadequate treatment of individual diversions mean it is not possible to validate the conclusions reached within Appendix 3.1 Table 1.1 regarding the absence of likely significant effects from individual gas pipeline diversions (i.e. that these diversions are therefore not NSIPs). Additionally, Table 1.1 merely provides the title of each affected gas transporter asset rather than any description of the affected pipeline route, location or interactions with other nearby infrastructure. As Table 1.1 does not include numbered works references it is also difficult to pinpoint each individual diversion on the submitted Works Plans (App. 2.6).
- 4.3.7 The screening assessment presented in Table 1.1 of Appendix 1.3 (App. 6.3<sup>3</sup>) is stated as having taken into consideration the effects identified in the main body of the Environmental Statement (App. 6.1). However:
- Five of the utilities diversions which are considered not to result in any likely significant environmental effects reference individual heritage assets and unnamed ecological receptors as being of relevance. However, the corresponding impact assessments presented in Chapters 6 and 8 of the ES do not provide specific effect conclusions for or even reference the individual utilities diversions within the impact assessment, which makes it difficult to validate the conclusions reached in App 3.1 Table 1.1; and,
  - ES chapters are also unclear at times whether the limited references to utilities diversions relate to the proposed utilities NSIP diversions or Associated Development. As an example, Table 2.11 within Chapter 2 Project Description of the Environmental Statement (App. 6.1) provides a high-level summary of major utility diversions in each section of the Project however this does not indicate which elements correspond the proposed utilities NSIP diversions or Associated Development (i.e. numbered works within the draft DCO (App 3.1), and subsequent technical assessment chapters largely do not reference individual diversions as contributing to or generating identified environmental effects. In addition, the Works Plans (App. 2.6) and Engineering Section Drawings (Application Document: 2.9) do not clearly distinguish between utilities diversions which constitute the proposed utilities NSIP diversions or Associated Development.

#### *Electricity Transmission Infrastructure*

- 4.3.8 The Planning Statement (App 7.2) at paragraph 1.5.3 sets out the relevant electrical transmission NSIP qualification criteria and relates this to the proposed electricity overhead

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<sup>2</sup> Appendix 1.3: Assessment of proposed gas pipeline works for the purposes of section 20 of the Planning Act 2008, App. 6.3 Environmental Statement Appendices

<sup>3</sup> Appendix 1.3: Assessment of proposed gas pipeline works for the purposes of section 20 of the Planning Act 2008, App. 6.3 Environmental Statement Appendices



line (OHL) works. Pertinent NSIP thresholds are a minimum route distance of 2km and 60m divergence from the existing OHL which needs to be diverted.

- 4.3.9 Unlike ES Appendix 1.3 for gas pipelines a full list of proposed OHL diversions is not included anywhere within the ES and there is no screening assessment for individual OHL diversions to confirm why only one of the diversions constitutes a NSIP in its own right. This is problematic as the suite of proposed OHL numbered works within Schedule 1 of the Draft DCO (App 3.1) includes multiple works which satisfy the minimum 2km route length threshold, e.g. OH1. It is therefore assumed that all but one of these works fail the 60m divergence requirement or other NSIP thresholds, but no evidence is provided to confirm this. Consideration of whether each proposed OHL work constitutes a NSIP is important as this determines whether and the extent to which relevant tests within Energy NPS EN-5 are engaged in respect of individual impacts from individual diversions, as well as from the Project overall (as it is established the Project includes at least one electrical transmission NSIP).

#### Associated Development

- 4.3.10 The Explanatory Memorandum (App. 3.2) states that all utilities works either constitute part of the NSIP or are 'Associated Development' within the meaning of section 115(2) of the 2008 Act, and so it is claimed can properly be authorised by the DCO. However, neither the Explanatory Memorandum nor any other DCOv1 application document explains why those proposed utilities diversions not qualifying as NSIPs in their own right can properly be authorised within the DCO as Associated Development.
- 4.3.11 It is acknowledged the Explanatory Memorandum identifies a need to avoid overlap and potential duplication between different elements of the Project. However, the scale of proposed utilities diversions, their specific purpose and design characteristics (i.e. relocation of utilities away from the Project) mean there is limited potential for overlap, whilst utilities diversions would generate some specific impacts. HE's stated rationale therefore does not provide a robust basis for the lack of any justification for Associated Development status having been provided in respect of proposed non-NSIP utilities diversions. Government Guidance (Planning Act 2008: associated development applications for major infrastructure projects (DCLG, April 2013)) makes clear that Associated Development will be determined by the Secretary of State on a case by case basis, so whilst utilities diversions are listed as potentially being an accepted as Associated Development and there are DCO precedents, this does not negate the need for HE to still confirm why that should be the case for this specific project.
- 4.3.12 This omission is of particular importance for proposed electrical transmission diversions as, in the event a diversion (or multiple) does not qualify as an NSIP and is not accepted as Associated Development, it would be necessary to seek alternative authorisation under Section 37 of the Electricity Act 1989 and the diversion would need to be assessed as a specific cumulative development. However, the potential need to seek alternative authorisation under Section 37 of the Electricity Act and the implications of this are not identified within App 3.3 – Consents and Agreements Position Statement. App 3.3 refers to all "powers to carry out required utilities diversions" as being incorporated within the DCO application, without consideration of the potential for any utility diversions to not be accepted as Associated Development.

#### **Consideration of Alternatives**

- 4.3.13 Paragraphs 3.4.15 – 19 of the ES explain how the preferred route was developed following multiple consultations regarding candidate crossing locations, routes and types. It is clear that the preferred route was selected based on factors including environmental impacts, but paragraphs 3.4.18-3.4.19 do not reference utilities diversions or associated environmental impacts as factors which were taken into account. Rather, it is clear from ES Chapter 3 that the need for and design of utilities diversions has been considered as a necessary consequence of the preferred route rather than a major design consideration at the outset.



This is unfortunate given the scale of the proposed utilities NSIP diversions (and other utilities diversions) now required to facilitate the project.

- 4.3.14 As noted above, the LTC DCOv1 (October 2020) suffers from a lack of consistency and clarity regarding the identification of individual utilities diversions. This also applies in terms of the assessment of reasonable alternatives, as whilst paragraphs 3.6.7 – 3.6.19 within ES Chapter 3 outline how five major utilities diversions have evolved, this does not confirm which numbered work(s) the diversions relate to. It is therefore not possible to confirm how these five diversions relate to the proposed utilities NSIP diversions (including four gas pipelines). This matters as it undermines the ability to demonstrate compliance with reasonable alternative requirements within NPS EN-5.
- 4.3.15 Table 3.5 – Other Design Changes within Chapter 3 of the ES explains that the preferred route was adjusted at Ockendon Landfill Site to avoid the landfill, instead passing through a proposed solar farm and crossing a gas pipeline. The table concludes that impacts on the gas pipeline could be mitigated, without providing any details of the affected pipeline or mitigation solution (including whether any diversion would itself generate environmental impacts). In addition the table does not confirm whether any alternative diversion routes to avoid Ockendon Landfill Site without crossing the gas pipeline (details unspecified) are feasible or were considered.
- 4.3.16 Table A2.2 within the Planning Statement (App. 7.2) Appendix A2 National Policy Statements for Energy Infrastructure Accordance Tables sets out the detail for undergrounding the infrastructure associated with the new 74m pylon, assumed to be NSIP 5 - Works No. OH6 discussed above.

## Assessment of Effects

- 4.3.17 As noted above, key deficiencies regarding the consideration of utilities diversions are a lack of consistent references to individual diversions between (and within) DCOv1 application documents, and the absence of clear assessments of effects generated by individual diversions (either as a standalone impact or where a utilities diversion contributes to a wider impact from the Project). Combined with the assumed treatment of all non-NSIP utilities diversions as Associated Development, the consideration of utilities diversions only in general terms rather than individual references within EIA reporting (i.e. ES technical assessment chapters) significantly hinders the ability to clearly understand the types and levels of environmental impacts associated with each proposed diversion. In consequence, the LTC DCOv1 does not clearly establish the environmental acceptability of all proposed utilities diversions in accordance with relevant requirements set out within EN-1, EN-4 and EN-5.

## Mitigation and Monitoring

### Undergrounding

- 4.3.18 LTC DCO documents including Planning Statement Appendix A2 and ES Chapter 3 discuss the possibility of undergrounding electrical transmission cables (currently OHLs) in specific locations to reduce likely environmental effects. However, neither the Planning Statement Appendix A2, ES Appendix 1.3 (App. 6.3) nor the wider ES fully address the tests set out in paragraph 2.8.9 of NPS EN-5 regarding whether:
- Difficulties associated with undergrounding are ‘technically surmountable’ (our emphasis, NB not economically feasible or preferred on design and/or cost grounds); and,
  - The benefits of non-undergrounding (NB not the need for a Project) clearly outweigh extra environmental, social and economic impacts caused by not undergrounding and proceeding with an OHL diversion.

- 4.3.19 The main deficiencies are that text regarding undergrounding in different LTC DCOv1 documents/sections does not set out consistent and comprehensive criteria regarding firstly the selection of candidate locations for undergrounding and secondly the types of environmental, social and economic impacts which HE has taken into account when balancing extra impacts against the benefits of non-undergrounding. For example, paragraph 3.6.11 of the ES states that undergrounding of an OHL at the A13/A1089 junction was discounted due to horizontal directional drilling (HDD) being required in sensitive locations (Blackshots LWS), land-take and cost. However, no explanation is provided regarding potential impacts on the LWS and, taking account of the designation's local status and HDD requirements, whether these would be more or less acceptable than not under-grounding the OHL.
- 4.3.20 Additionally, whilst the various justifications provided by HE as to why undergrounding in specific locations is not proposed present a binary choice between the proposed OHL diversion and a specific (discounted) under-grounding design, without reference to potential wider OHL route changes that may well extend the length of diversions but could offer the potential to then under-ground route sections in more feasible locations and thus reduce overall environmental impacts from the utility route.

#### Relevant Mitigation Measures

- 4.3.21 Table 4.1 below lists proposed environmental mitigation measures identified through the EIA process and now listed within HE's Register of Environmental Actions and Commitments (REAC, App 6.3) of specific relevance to the implementation of all proposed utilities diversions (including the proposed utilities NSIP diversions). Other elements of Thurrock Councils review have considered the adequacy and proposed details of mitigation measures where appropriate.

Table 4.1: Mitigation Plans and Measures – Utilities

Mitigation Plan or Measure	Secured By	Summary
REAC (App. 6.3) Ref No: LV001	Landscaping scheme - Requirement 5	The detailed design for the alignment of diverted utilities is to avoid trees and vegetation as far as reasonably practicable, and in accordance with the landscaping scheme as approved by the SoS.
REAC (App. 6.3) Ref No: LV002	Landscaping scheme - Requirement 5	Land temporarily impacted by works to divert utilities is to be reinstated to its former condition and composition upon completion, as far as reasonably practicable, unless otherwise specified in the Environmental Masterplan (App. 6.2).
REAC (App. 6.3) Ref No: RDWE008	Protective Provisions – Schedule 14	Where below ground utilities diversions are required, watercourses would be crossed using trenchless techniques in order to avoid disturbance to channel form, flow regimes and riparian habitats and species, unless other techniques are agreed with the Environment Agency or LLFA, where relevant.

- 4.3.22 The following additional mitigation commitments and measures listed within the REAC (App 6.3) are also of potential relevance to all utilities diversions by virtue of applying to all elements of the Project. However, the wording of these proposed measures does not explicitly relate to utilities diversions.

Table 4.2: Mitigation Plans and Measures – Other considerations

Mitigation Plan or Measure	Relevance to Utilities Diversions
REAC (App. 6.3) Ref No: C004	The Contractor(s) would procure electricity from renewable electricity suppliers to cover the consumption from the Project's construction compounds.
REAC (App. 6.3) Ref No: C007	Electricity used for operation of the Project would be procured from renewable electricity suppliers.
REAC (App. 6.3) Ref No: GS001	The Contractor would complete further Ground Investigations prior to construction to inform detailed design of the Project.
REAC (App. 6.3) Ref No: GS006	All excavated materials and soils proposed for re-use under a Materials Management Plan would be required to meet risk-based acceptability criteria applicable to its intended use.
REAC (App. 6.3) Ref No: GS009	Soils would be handled and stored to allow their sustainable re-use in line with the Defra Construction Code of Practice for the Sustainable Use of Soil on Construction Sites (2009) and the MAFF Good Practice Guide for Soil Handling (2000).
REAC (App. 6.3) Ref No: GS010	Characterisation of the existing soil to determine its resilience to handling and stripping depths would be based on detailed soil surveys.
REAC (App. 6.3) Ref No: GS011	Land required temporarily during the construction phase would be reinstated to support the required end use in-line with land use identified on the Environmental Masterplan.
REAC (App. 6.3) Ref No: GS012	Reinstatement of soils affected by temporary works would aim to avoid any reduction in soil function.
REAC (App. 6.3) Ref No: GS013	Procedures for the management of soil resources.
REAC (App. 6.3) Ref No: GS014	Following soil reinstatement there would be a 5 year aftercare period during which defects would be corrected.
REAC (App. 6.3) Ref No: GS018	The ground gas regime across the Project and especially in close proximity to landfill sites would be investigated.
REAC (App. 6.3) Ref No: GS030	A temporary access road is proposed across the former Esso petrol station on the northside of the A2/M2 junction.

#### Securing Mechanisms

- 4.3.23 The CoCP (App. 7.11) details that delivery of the Project has been split into several tranches of contracts to best serve the Project's requirements and programme (paragraph 3.1.1). Whilst each tranche refers to the contracts including the diversion and protection of existing utilities, cross reference to each of the proposed utilities NSIP diversions is not made within the document. This matters as each utilities NSIP should map to clear DCO Requirements and associated implementation plans and mitigation measures in the same way as would be required if the relevant diversion was a standalone DCO application.

- 4.3.24 The CoCP (App. 7.11) states in paragraph 1.4.4 that the appointed contractors (including those carrying out the utilities works) will comply with applicable environmental legislation at the time of construction, together with any additional environmental controls required under the DCOv1, including commitments set out in the CoCP and the REAC (App.6.3, Appendix 2.2). The requirement for the Contractors to comply with these measures is stated as to be embedded within their contract for the Project.
- 4.3.25 Requirement 4 in Schedule 2 (Part 1) of the DCO (App. 3.1) requires no part of the authorised development (the Project) to commence until an Environmental Management Plan (EMP2) in accordance with the CoCP (App. 7.11) and which “reflects” the REAC (App 6.3) has been submitted to and approved in writing by the Secretary of State (SoS), following consultation with the relevant planning authority.
- 4.3.26 Section 1.3 of the REAC (App. 6.3) details all mitigation commitments and securing mechanisms within the DCO. Whilst these commitments would be secured through Requirement 4 within Schedule 2 of the draft DCOv1, they are high level and there is no specific assurance that all identified individual actions and commitments would be implemented as intended when first devised (through the EIA process) within the Environmental Management Plan (EMP2).
- 4.3.27 The approach adopted by HE therefore limits the ability to secure effective mitigation to prevent, avoid and minimise likely significant effects from the Project, including specifically from proposed utilities diversions. This is of potential concern as HE will have less control over the implementation of ‘Non-Contestable’ works by (or contractors on behalf of) utilities statutory undertakers rather than by HE, so if specific mitigation measures identified within the ES and subsequently the REAC are not set out in full within the EMP2 there is a risk they could be missed by contractors.

#### Access/Traffic Diversions for Utilities Works

- 4.3.28 Neither the REAC (App. 6.3) nor the CoCP (App. 7.11) make specific requirements for traffic/access diversions in relation to carrying out proposed utilities works. However, general traffic/access diversions detailed within the CoCP (App. 7.11) will apply to the whole Project, and thereby all utilities diversions. As required by Requirement 10 of Part 1 of Schedule 2 of the DCOv1, the Contractors will be required to produce Traffic Management Plans for construction before commencing work, focused on:
- a. Strategic road network traffic management including lane closures speed control and temporary road closures and diversions;
  - b. Local road network, including temporary contraflows, road closures, diversions both on-line and off-line and weekend closures; and,
  - c. Traffic management within the worksite, such as traffic routes and workforce pedestrian management, strategic and local road networks due to the different highway authorities.
- 4.3.29 Table 5.2 Additional working hours of the CoCP (App. 7.11) provides that periods of low demand or traffic flows will be used to carry out utility diversions, without this being further defined or restricted. This means the deliverability and phasing of acceptable traffic/access diversions has not yet been fully confirmed, including in relation to undertaking proposed utilities works.
- 4.3.30 Embedded mitigation is included within the Design Principles (App. 7.5) or as features presented on Figure 2.4: Environmental Masterplan (App. 6.2). A number of the technical chapters within the ES cross reference best practice with regards to utilities.

## 5 Review of Utilities NSIPs Coverage in Non-Statutory Consultation Documentation (July 2021)

### 5.1 Overview

5.1.1 In July 2021, HE published a suite of technical and supporting documents for non-statutory consultation to inform the preparation of a future revised LTC DCO application. This review, focused on assessing the compliance of proposed utilities NSIPs with relevant Energy NPS, has considered the following July 2021 consultation documents:

- Review of Ward Impact Summaries - North of the River - Part 1;
- Review of Ward Impact Summaries - North of the River - Part 2;
- Code of Construction Practice First Iteration of Environmental Management Plan (June 2021);
- Appendix E – Design Principles (June 2021);
- Construction Update (July 2021);
- Large Scale Construction Maps – Sheet 1 to 6 (July 2021);
- Operations Update (July 2021);
- General Arrangement Maps – Sheet 1 to 6 (July 2021);
- Framework Construction Travel Plan
- Outline Traffic Management Plan for Construction;
- Schedule 2 Requirements and Explanatory Memorandum; and
- You Said, We Did (July 2021).

### 5.2 General Comments

#### Identification of Proposed Utilities Diversions

- 5.2.1 Paragraph 146.24 of You Said, We Did (July 2021) states that the proposed Order Limits have increased by 24% compared with the LTC DCOv1 (October 2020), with an increased from 20 km<sup>2</sup> to 26.3 km<sup>2</sup> detailed in Paragraph 150.
- 5.2.2 Paragraph 146.1 to 146.9 of You Said, We Did (July 2021) provides a qualitative description of a number of changes to utilities infrastructure associated with the Project. North of the Thames proposals for utilities infrastructure including high-pressure pipeline works are identified at Folkes Lane, Warley Street, north of Ockendon Landfill, Green Lane, Orsett, the Orsett Showground and Brentwood Road. It is however unclear from the discussion within this document whether some or all of these proposed utilities works constitute (or form part of) utilities NSIPs in their own right or Associated Development.
- 5.2.3 Figure 2.7 within the Operations Update (July 2021) shows updated proposals for relocated utility infrastructure. This clearly depicts the location of the utilities NSIPs, which have been

revised since the withdrawal of the LTC DCOv1 (October 2020). Utilities NSIPs are now described as follows within the Operation Update (July 2021):

- 1) NSIP High Pressure Gas Pipeline Diversion;
- 2) NSIP High Pressure Gas Pipeline Diversion;
- 3) NSIP High Pressure Gas Pipeline Diversion; and
- 4) NSIP National Electricity Transmission Diversion.

5.2.4 In addition, Figure 2.7 lists two other proposed utilities diversions:

- New Primary Substation & Switchgear Equipment;
- New Gas Valve Compound;

5.2.5 From the wording used on the key within Figure 2.7 it is assumed these two utilities diversions do not qualify as utilities NSIPs and are thus Associated Developments, although this is not confirmed. Additionally, Figure 2.7 depicts multiple additional proposed utilities works or diversions (gas and OHL) along the M25 corridor within Thurrock, without providing any labels or descriptions in the key to identify the scope of these works.

5.2.6 Therefore, whilst Figure 2.7 is a useful visual representation, the Operation Update (July 2021) provides limited descriptions of each utilities NSIP and issues identified in the review of the LTC DCOv1 (October 2020) regarding a lack of clear, consistent and adequate reporting remain unresolved. The absence of consistent referencing and descriptions continues to prevent a full understanding of the characteristics, classification and impacts of proposed utilities diversions within Thurrock.

5.2.7 Whilst Appendix E – Design Principles (June 2021) applies to the Project's permanent physical structures thereby excluding utilities diversions, reference is made to the need for specific Utility Logistics Hubs (ULHs) and efficient working with utility providers.

### **Classification of NSIPs and Associated Development**

5.2.8 Whilst the consultation documentation (July 2021) provides further detail regarding utilities work, documentation often adopts a qualitative description of proposed works, without specific cross-references to individual numbered works. This is at times challenging to follow, as it relies on an existing contextual understanding to determine whether the text is discussing the proposed utilities NSIP diversions and/or Associated Development.

#### Utilities NSIPS

##### *Gas Pipelines*

5.2.9 Reporting deficiencies within the LTC DCOv1 (October 2020) regarding lack of consistent referencing and inadequate treatment of individual diversions continue to be present within the consultation documentation (July 2021). For example, the Operations Updates (July 2021) states that a permanent compound along Stanford Road will be built for the operation and maintenance of the high-pressure gas network, however it is not clarified whether this supports proposed utilities NSIP diversions or Associated Development.

5.2.10 The Construction Update (July 2021) discusses two NSIP gas transmission pipelines which would need to be diverted near the A2/M2: NSIP 1 - Works No. G2; and NSIP 2 - Works No. G3. NSIP 2 - Works No. G3 is noted as requiring diversion in two separate locations - around 0.12km in length at the Claylane Wood area and 2.7km from the west of Thong Lane to the



A226 – with each section constituting an NSIP. It will be important for the interaction between these utilities works to be identified when two linked diversions are presented as numbered works within Schedule 1 of a new draft DCO that will need to underpin any revised LTC DCO application.

#### *Electricity Transmission Infrastructure*

- 5.2.11 LTC DCOv1 (October 2020) described NSIP 5 - Works No. OH6 as including a new 74m pylon associated with a OHL diversion (refer to Table A2.2 of the Planning Statement (App. 7.2)). The Construction Update (July 2021) now identifies the need for a 75-metre high pylon, indicating an update to proposed utilities infrastructure. NSIP 5 - Works No. OH6 is described as having a requirement of three new pylons to cross the route and Thong Lane; removal of four existing pylons; and two temporary diversions of the power line on four temporary pylons to maintain electricity supply while new pylons are installed.
- 5.2.12 Paragraph 86.41 of You Said, We Did (July 2021) details that Land near Bulphan, a village in Thurrock, is now included in the Order Limits for the project. The land is approximately 800 metres by 30 metres and is required as UK Power Networks would need to carry out temporary works to replace and upgrade OHLs to provide power for LTC construction sites. This land is stated to be required temporarily with permanent rights for maintenance.
- 5.2.13 Section 3.3 Private recreational facilities of the Operational Update (July 2021) identifies a small area to the north-east of the Thurrock Rugby Football Club that would be used for the diversion of OHLs associated with works to the A13/A1089 junction. Permanent rights are to be acquired over the area affected for the operation and maintenance of those utilities. The text does not clarify if this falls within proposed utilities NSIP diversions or Associated Development, although the latter is assumed. The Update states these works are not expected cause any impact to the Rugby Club without providing any further explanation.
- 5.2.14 Paragraph 79 of the Ward Impact Summaries - North of the River Part 1 details two ULHs will be located in East Tilbury. Paragraph 81 and 82 details that these will support the following works however it is not clarified whether these fall within the proposed utilities NSIP diversions or Associated Development:
- Modifications to an existing 400kV overhead power line, around 2.5km in length, including the removal of three pylons and construction five new ones; and
  - Realignment of an existing 132kV overhead power line, around 1.5km in length. This lies partially in the East Tilbury ward and would involve the removal of four existing pylons and construction of five new ones. This utility diversion however is stated to be managed out of the Brentwood Road Compound (located in Orsett ward, Thurrock).
- 5.2.15 Paragraph 102 of the Ward Impact Summaries - North of the River Part 1 states that the following land has been removed from the Order Limits as it is no longer required for utility diversions: land parallel to Beechcroft Avenue, north and north-west of Ashlea Farm and to the east of High House Lane (land at Sugarloaf Riding Association for the Disabled also included in removal). As detail in Chapter 3 of the Operations Update (July 2021), land north of East Tilbury is now proposed as an alternative location for the re-stringing of overhead lines north of Linford and refinement of Order Limits around Hoford Road. The text does not clarify if this falls within proposed utilities NSIP diversions or Associated Development, although the latter is assumed.

#### Associated Development

- 5.2.16 The consultation documentation including draft DCO Schedule 2 Explanatory Memorandum does not elaborate on the very limited consideration of Associated Development status provided within the LTC DCOv1 (October 2020). No further explanation is provided as to why

proposed utilities diversions not qualifying as NSIPs in their own right, can properly be authorised within the DCO as Associated Development.

### Consideration of Alternatives

- 5.2.17 As noted above, following from weaknesses identified within the LTC DCOv1 (October 2020) the consultation documentation (July 2021) continues to suffer from a lack of consistency and clarity regarding the identification of individual utilities diversions. This also applies in terms of the assessment of reasonable alternatives which undermines the ability to demonstrate compliance with reasonable alternative requirements within NPS EN-5.
- 5.2.18 Paragraph 73.15 of You Said, We Did (July 2021) states that the routing of a utilities diversion has now been moved 200 metres south-west to reduce impacts on the environment, utilities and landfill works in the area. This has, however, resulted in alterations to the layout of structures over the Mardyke River and associated sewers (Orsett Fen Sewer and Golden Bridge Sewer), thereby generating the potential for new or different environmental effects. Reference to any assessment of effects from this change is, however, not provided and there is no evidence of alternative diversion routes having been considered.

### Assessment of Effects

- 5.2.19 Updated plans for construction and the diversion of utilities have been accounted for within the consultation documentation (July 2021). This is based on consultation feedback, an increased understanding of the scale and nature of works of the project, outline HGV routing, increased data from utility companies and additional land within the Order Limits.
- 5.2.20 Amendments have been made to the Lower Thames Area Model (the project's strategic transport model) since the DCOv1 application (October 2020). The Operations Update provides information on the latest traffic modelling results, which for Thurrock shows reductions in congestion on some local roads and an increase in traffic flows on others as a result of the Project. The Ward Impact Summaries also identify forecasted changes in traffic flows at a local level once the Project is operational.
- 5.2.21 A review of Table 1.1 within the Ward Impact Summaries - North of the River Part 1 indicates that the project extends through the following wards, located within Thurrock: East Tilbury; Tilbury Riverside and Thurrock Park; Tilbury St Chads; Chadwell St Mary; Orsett Thurrock; Little Thurrock, Blackshots, Little Thurrock Rectory; Stifford Clays, Chafford and North Stifford, Belhus; West Thurrock and South Stifford; Ockendon. A chapter is dedicated to discussing impacts of each Ward.
- 5.2.22 Paragraph 1013 of You Said, We Did (July 2021) states the project proposals do not impact Thurrock Council's A13 widening works. These works would be complete before the construction of the project is planned to begin, and the design has been developed to tie into the finished A13 works.
- 5.2.23 It is of note that the Operations Update (July 2021) states that HE is working with Thurrock Power Ltd on their proposed Thurrock Flexible Generation Plant development, which is currently undergoing a DCO Examination. A number of potential interfaces have been identified including a proposed high-pressure gas pipeline beneath Tilbury Viaduct and adjacent to Low Street Pit in Thurrock. The Update states that if both projects are consented they can be developed in tandem although realignment of the identified high-pressure gas pipeline would be required. The consultation documentation (July 2021) does not provide further evidence to clearly establish the environmental acceptability of all proposed utilities diversions forming part of the Project in combination with relevant cumulative developments.



## Mitigation and Monitoring

### Relevant Mitigation Measures

- 5.2.24 Proposed mitigation measures are identified within the consultation documentation (July 2021) include those of specific relevance to the implementation of all proposed utilities diversions (including the proposed utilities NSIP diversions) and also those of potential relevance to all utilities diversions by virtue of applying to all elements of the Project. The documentation highlights a number of proposed changes to mitigation.
- 5.2.25 Thames Chase Community Forest covers 40 square miles, including parts of Thurrock. Thames Chase Community Forest and Shorne Woods Country Park are noted in paragraph 113.26 of You Said, We Did (July 2021) as being directly affected by the Project. Land is noted as being required permanently to construct and operate the Project, with additional land needed temporarily (with permanent rights) to carry out essential utility diversions. It is, however, unclear whether this relates to the proposed utilities NSIP diversions or Associated Development. As mitigation, however, replacement land is proposed which would be next to the affected site, with planting, landscaping and public rights of way designed to integrate the new land into the existing site. Paragraph 145.5 states that an identified trunk water main in the Thames Chase Community Forest area would be affected, however, the extent of impact and appropriate mitigation is unclear.
- 5.2.26 Paragraph 146.17 of You Said, We Did (July 2021) states that to reduce to impacts of utilities on local communities, it is now proposed to reduce the number of OHL pylons near the route between Chadwell St Mary and Tilbury, within Thurrock (removal of 16 existing pylons and installation of 10 new ones).

### Undergrounding

- 5.2.27 The Operations Update (July 2021) makes reference to proposed undergrounding of sections of existing OHL and associated pylons at Thames Chase Forest and west of East Tilbury and Linford. The Update indicates that 11 smaller permanent substations (five metres by five metres) would be required as part of these works.
- 5.2.28 Figure 3.12 Tilbury Area notes that the extended Order Limits includes land to the south of Substation Road where it passes between the existing power transmission site to the north and the site of the old Tilbury Power Station. This new land is now included within the Order Limits to allow for a new power line to be undergrounded, reducing impacts on the utility companies. The Operations Update states this undergrounding decision has been made in light of discussions with Port of Tilbury in relation to proposals for Tilbury 2, a proposed new port facility. There is, however, no cross reference to any technical assessment evidence nor the tests set out in paragraph 2.8.9 of NPS EN-5.

### Securing Mechanisms

- 5.2.29 The Code of Construction Practice First Iteration of Environmental Management Plan (June 2021) confirms that the delivery of the Project has been split into several tranches (paragraph 4.1.1). This approach adopted by HE limits the ability to secure effective mitigation to prevent, avoid and minimise likely significant effects from the Project, including specifically from proposed utilities diversions.

### Access/Traffic Diversions for Utilities Works

- 5.2.30 The Construction Update (July 2021) indicates some variance to the working hours of the CoCP (App. 7.11), stating 24-hour working would be necessary to construction the two deep tunnels beneath the new Lower Thames Crossing. These works are associated with land to the west of Thong Lane for NSIP 2 - Works No. G3. The CoCP First Iteration of Environmental Management

Plan (June 2021) details in Table 6.1 that underground work (tunnelling, shaft works and portals) will be undertaken on a continuous 24-hours, seven days a week basis. Table 6.3 provides a detailed breakdown of the 24/7 construction working locations specifically for utilities. This is additional detail which was lacking from the LTC DCOv1 (October 2020). The CoCP First Iteration of Environmental Management Plan (June 2021) is, however, a draft document meaning the deliverability and phasing of acceptable traffic/access diversions has not yet been fully confirmed, including in relation to undertaking proposed utilities works.

- 5.2.31 The Construction Update (July 2021) is supported by Large Scale Construction Maps – Sheet 1 to 6 (July 2021) which depicts access routes for utility works and utility logistic hubs. The Operations Update (July 2021) is supported by General Arrangement Maps – Sheet 1 to 6 (July 2021). These maps have dedicated elements relevant to utilities including: maximum length of OHL to be removed; realigned gas; realigned or modified overhead cable; and as compound or electricity substation. Both the construction and operational mapping fails to clearly indicate which routes relate to the proposed utilities NSIP diversions or Associated Development. Additionally the mapping does not cross reference numbered works, either from the LTC DCOv1 (October 2020) or Schedule 1 of a new draft DCO that will need to underpin any revised LTC DCO application.
- 5.2.32 Table 3.1 of the Construction Update (July 2021) provides detail of four temporary Utility Logistics Hubs (ULHs) south of the River Thames required for the construction of the project. Traffic management required as a result of the compounds and the utilities works is included in the Ward Impact Summaries and the Outline Traffic Management Plan for Construction (OTMPfC).
- 5.2.33 Paragraph 79 of the Ward Impact Summaries - North of the River Part 1 details two ULHs will be located in East Tilbury: Muckingford Road ULH located east of the new road and south of Muckingford Road. Access for utility companies using this ULH would be via Muckingford Road and a temporary road off the haul road; and Low Street Lane ULH would be north of the Tilbury Loop railway and west of the proposed Tilbury Viaduct. It would be accessed from the north, via a temporary access built off the haul road.
- 5.2.34 There would be no ULHs within Tilbury St Chads ward (paragraph 399) however an area at the north-eastern edge of Tilbury St Chads ward would be used for utility works (paragraph 398). This is identified to be limited to underground utility diversions along local roads in paragraph 408. An area of farmland south of the Condovers Scout Activity Centre has been removed from the Order Limits as it is no longer required for utility diversions. Paragraph 410 however details that HE propose to acquire permanent rights over an area of land at Walton Common and Parsonage Common for utility works required for the northern tunnel entrance.
- 5.2.35 Chadwell St Mary will contain no ULHs however access to Brentwood Road ULH would be through Chadwell St Mary along Brentwood Road. There is to be substantial works to divert utilities away from the ward as required for the new road. This includes:
- The diversion of a 272kV overhead power line, building two new pylons and removing two existing ones in the north-west of the ward;
  - Part of the realignment of the 400kV overhead power line, also removing two existing pylons and building two new ones as part of restringing works in the north-east of the ward;
  - Diverting a high-pressure gas pipeline, 0.27km in length, that runs alongside Brentwood Road; and,
  - Installing a new underground power cable, 3km of which goes along Marshfoot Road and Brentwood Road.

- 5.2.36 The text however does not clarify whether these works fall within the proposed utilities NSIP diversions or Associated Development.
- 5.2.37 The design and layout of Long Lane ULH states to account the setting of heritage assets, and avoid light glare, light spill and light pollution during night-time construction, as detailed in Design Principles (paragraph 326). This is within the Chadwell St Mary ward.
- 5.2.38 Most of Orsett ward is outside the proposed Order Limits, but a large amount of construction activity essential to building the main route and the proposed A13/A1089 junction would take place in the south-west of the ward, near the existing A13/A1089 junction. Paragraph 685 of the Ward Impact Summaries - North of the River Part 1 details several ULH within the ward: Stanford ULH; Brentwood Road ULH; Hornsby Lane ULH; Long Lane ULH; Stifford Clays Road ULH and Green Lane ULH. Paragraph 686 states these will be used as bases for both works within and external to the ward. Utilities works include:
- Realignment of 400kV OHLs, around 1.7km in total length, with four new pylons, one of which would be in Orsett ward;
  - Four existing pylons would be removed, including one in Orsett ward and one on the ward boundary with Chadwell St Mary;
  - Realignment of 275kV OHLs, 3.2km in length, with eight pylons to be removed in total and 10 new pylons to be constructed, two of them temporary;
  - High-pressure gas pipeline, 5.2km in length;
  - New permanent high-pressure gas valve Compound and permanent access from Stamford Road; and,
  - High-pressure gas pipeline, around 0.3km in length.
- 5.2.39 The text however does not clarify whether these works fall within the proposed utilities NSIP diversions or Associated Development. Modifications to local utility networks are however detailed to be undertaken across several local roads within Orsett ward, which are assumed to be Associated Development.
- 5.2.40 Paragraph 734 states that the 'spur' of the Order Limits that runs north-south through the Ron Evans Memorial Field, is to be removed from the Order Limits as a result of utilities works being conducted elsewhere. Two small new areas of land are however proposed to the north of the ward for a utilities working area. The location of this is not identified.
- 5.2.41 Paragraph 904 of the Ward Impact Summaries - North of the River Part 1 states that substantial works to realign utilities under the A1089 would be required, as would works to divert utilities along the A1013, within the Little Thurrock Blackshots ward. It is not stated whether this is the proposed utilities NSIP diversions or Associated Development, however it is assumed to be the latter. No ULH's are to be located within the ward however Long Lane ULH is close to the ward boundary.
- 5.2.42 As discussed in Paragraph 1063 of the Ward Impact Summaries - North of the River Part 1, the Green Lane ULH would be located in Stifford Clays ward. This ULH would provide an area from which utility diversions could be organised and delivered, including the diversion of two high-pressure gas pipelines, one north of Green Lane and one around the north of the A13. It is not stated whether this is the proposed utilities NSIP diversions or Associated Development.
- 5.2.43 There is no construction activity or elements of the completed project in West Thurrock and South Stifford ward, apart from the use of the M25 and the A13 as routes for construction traffic accessing the project. There is no ULH located within the ward.

- 5.2.44 There is a high-voltage overhead power line in the east of Ockendon ward, which is crossed by the proposed new road. Paragraph 1307 of the Ward Impact Summaries - North of the River Part 1 details the following utility works is needed:
- Realignment of the overhead power lines running north-south is required, with e modifications to the existing overhead power lines include removal of one pylon and its replacement with one around 16 metres taller;
  - A temporary overhead line diversion is stated to be needed, along with the associated re-stringing work;
  - Diversion of gas pipelines along the alignment of the new road;
  - Divert or seal off the existing high-pressure gas pipeline used for the operation of Barking Power Station;
  - Diversions of multiple utility networks along the B186 North Road, including gas, water, power and communications; and,
  - Installation of temporary utilities (water, waste, communications and power) for the Medebridge and M25 Compounds would also take place within Ockendon ward (paragraph 1308).
- 5.2.45 The text does not clarify whether this is whether these works constitute the proposed utilities NSIP diversions or Associated Development.
- 5.2.46 The Ward Impact Summaries - North of the River Part 1 provides a tabulated summary of the main traffic management measures across identified wards. Whilst cross references to the undertaking of utility works in made, it is not possible to determine whether the text is discussing the proposed utilities NSIP diversions and/or Associated Development. The ward sections also provide data on average daily vehicle numbers going to compounds located near or in wards, with commentary on the anticipated visual impacts of the ULH's where appropriate.
- 5.2.47 It is of note that Section 12.5 of the Ward Impact Summaries - North of the River Part 1 identifies a number of footpaths, bridleways and cycle routes to be impacted during construction, with specific reference to utilities: Footpath FP60 temporarily closed for eight months; Footpath FP64 temporarily closed for four months; Footpath FP78 closed for nine months; Footpath FP79 closed for five years; Bridleway BR219 within the Order Limits (north-west of Orsett Fen) would need to be closed for five years; Footpath FP97 closed for eight months; Bridleway BR223 closed for five years; Footpath FP135 closed for nine months; the section of FP136 within the Order Limits would need to be closed initially for five months. As above it is unclear whether this is the proposed utilities NSIP diversions and/or Associated Development.

## 6 Summary and Recommendations

### 6.1 Summary

- 6.1.1 This technical note reports the findings of a review undertaken of the previously submitted (now withdrawn) A122 Lower Thames Crossing (LTC) Development Consent Order (DCOV1) (October 2020) and of LTC Non-Statutory Consultation Documents (July 2021) in relation to the consideration of proposed utilities diversions which themselves constitute Nationally Significant Infrastructure Projects (NSIPs). The review contributes to the wider scrutiny by Thurrock Council of the LTC DCOv1 (October 2020) and emerging proposals for a future revised LTC DCO application.
- 6.1.2 Thurrock Council has consistently opposed the Project due to the negative economic, social, engineering and environmental impacts that it will have upon the borough, as well as the constraints it will place upon future growth. This includes construction and operational phase impacts from proposed utilities diversions, which the Council specifically raised concerns about in responses to HE's consultations prior to submission of the DCO application. The Council's main substantive concerns regarding proposed utilities diversions relate to the extent of land-take required and likely impacts on communities and existing infrastructure, including in terms of disruption and safety. Thurrock Council together with other affected local authorities and consultees also previously raised wider concerns regarding environmental and planning impacts from proposed utilities diversions. We acknowledge that some improvements have been made over the past year, but still seek further improvements/mitigations.
- 6.1.3 To inform Thurrock Council's engagement with HE and position in respect of a revised LTC DCO application, a high-level review of HE's assessment of proposed utilities diversions (including design, environmental impacts and mitigation) has been undertaken. This review has considered both the LTC DCOv1 (October 2020) and emerging proposals (July 2021) for a future revised DCO application. Key findings from this review are:
- Inadequate of reporting in respect of individual utilities diversions, especially within technical assessment chapters of the ES. Both LTC DCOv1 and the non-statutory consultation documentation (July 2021) to inform a future LTC DCOv2 discuss utilities diversions in general terms and suffer from a lack of specificity;
  - Absence of consistent referencing and diversion descriptions even where individual diversions are discussed;
  - By virtue of the above two deficiencies, inability to validate the NSIP screening conclusions reached within Appendix 3.1 Table 1.1 regarding the absence of likely significant effects from gas pipeline diversions (i.e. that proposed diversions are therefore not NSIPs);
  - Lack of clear identification and screening of proposed OHL works to confirm whether each qualifies as a NSIP in its own right or requires to be treated as an Associated Development;
  - Absence of any justification to support the assumed Associated Development status of all proposed non-NSIP utilities diversions is not helpful and raises concerns regarding the adequacy of App 3.3 – Consents and Agreements Position Statement;
  - The need for and design of individual utilities diversions has evidently been considered as a necessary consequence of the preferred route rather than a major design consideration at the outset. This is unfortunate given the scale of the proposed utilities NSIP diversions (and other diversions) and associated land-take now required to facilitate the project;

- g. Weak and inconsistent application of the undergrounding test set out at paragraph 2.8.9 of NPS EN-5; and,
  - h. Weak approach to EIA mitigation being secured through an EMP2 which merely “reflects” the REAC is of potential concern as HE will have less control over the implementation of ‘Non-Contestable’ works by utilities statutory undertakers.
- 6.1.4 The above deficiencies significantly hinder the ability to clearly understand the types and levels of environmental impacts and mitigation requirements associated with each proposed utilities diversion. In consequence, the LTC DCO does not clearly establish the environmental acceptability of all proposed diversions including the proposed utilities NSIP diversions in accordance with relevant requirements set out within EN-1, EN-4 and EN-5.

## **6.2 Recommendations to inform LTC DCO Rev 2**

- 6.2.1 The review reported in this technical note focused on assessing compliance with relevant Energy NPS, specifically EN-1, EN-4 and EN-5, in respect of proposed utility diversions which themselves constitute NSIPs. However, in doing so the review also identified weaknesses within the approach adopted by HE in their assessment of proposed utilities diversions more generally.
- 6.2.2 Review findings have informed the development of the following recommendations to improve how utilities diversions and associated impacts are addressed in any future revised LTC DCO application. HE is respectfully requested to carefully consider and implement these recommendations in the preparation of the LTC DCOv2 (all references below to specific DCO application documents refer to LTC DCOv1 which it is assumed will be revised or replaced as appropriate).

### **Identification of Proposed Utilities Diversions within LTC DCO Application**

- 6.2.3 The root cause of many identified weaknesses is a lack of clear and consistent referencing of individual utilities diversions. To address this, consistent referencing of individual diversions should be inserted throughout all DCO application documents based on the numbered works listed within Schedule 1 of any future draft DCO. Full consistency in relation to both referencing and descriptions of proposed works is required between the draft DCO, ES Appendix 1.3, ES Chapter 2 – Project Description and ES Chapter 3 – Assessment of Reasonable Alternatives.
- 6.2.4 To enhance consistency and enable a full understanding of proposed gas pipeline diversions, ES Appendix 1.3 Table 1.1 (NSIPs screening table) should include an additional column providing a brief description of the locational/route characteristics of each affected pipeline and a cross-reference to the relevant Works Plan(s) showing the proposed diversion.

### **Classification of NSIPs and Associated Development**

- 6.2.5 To enable the conclusions of ES Appendix 1.3 Table 1.1 to be validated, the reporting of likely effects associated with individual utilities diversions needs to be strengthened. All technical assessment chapters of the ES should confirm whether individual (or multiple) utilities diversions contribute to specific likely environmental effects (significant or not significant) and clearly state which individual diversion(s) is responsible, including by reference to the relevant Works Plan.
- 6.2.6 Where effects are contributed to or generated by proposed utilities NSIPs (as opposed to by Associated Developments), this should be confirmed within the relevant ES technical assessment chapter.



- 6.2.7 A screening assessment supported by evidence should be provided (as an ES appendix) to explain in full why only one proposed electrical transmission diversion constitutes a NSIP and why each of the other proposed electrical transmission diversions do not. This screening assessment should cross-reference the numbered OH works listed within schedule 1 of any future draft DCO.
- 6.2.8 Works Plans and Engineering Section Drawings should be amended to clearly distinguish between utilities diversions which constitute proposed utilities NSIP diversions or Associated Development.
- 6.2.9 In accordance with PINS Guidance (2013), a relevant DCO application document (e.g. Planning Statement) should provide a clear justification for why those proposed utilities diversions not qualifying as NSIPs in their own right can properly be authorised within the DCO as Associated Development.
- 6.2.10 Amend App 3.3 – Consents and Agreements Position Statement to reference the potential need to seek alternative authorisation under Section 37 of the Electricity Act 1989 in the event of any proposed electrical transmission diversion not constituting a NSIP or being accepted as Associated Development.

### **Consideration of Alternatives**

- 6.2.11 Amend ES Table 3.5 – Other Design Changes in respect of proposed utilities routing at Ockendon Landfill Site to:
- a. Provide details of the affected pipeline and mitigation solution, including whether the proposed utilities routing would generate environmental impacts; and,
  - b. Confirm whether any alternative diversion routes to avoid Ockendon Landfill Site without crossing the unnamed gas pipeline are feasible and have been considered by HE.
- 6.2.12 Amend ES Chapter 3 to explain why alterations (2020) to the M25 Junction 29 layout to reduce the extent of required OHL diversion, resulting in major negative visual changes, are considered to be appropriate and acceptable.
- 6.2.13 Amend ES Chapter 3 to confirm the specific OHL at Chadwell Link which triggered a route realignment (2020) to avoid a utilities diversion.

### **Assessment of Effects**

- 6.2.14 The above recommendations need to be implemented to enable any future revised LTC DCO application to clearly establish the environmental acceptability of all proposed utilities diversions, including specifically each proposed utilities NSIP in accordance with relevant requirements set out within EN-1, EN-4 and EN-5. In particular, the ES needs to provide clearer assessments of effects generated by individual or multiple diversions (either standalone impact or where a utilities diversion contributes to an impact alongside other elements of the Project).

### **Mitigation and Monitoring**

- 6.2.15 Define clear, consistent and comprehensive criteria for:
- a. Identification of candidate locations for potential OHL undergrounding; and,
  - b. Consideration of whether undergrounding at each of the candidate locations should be pursued or discounted.

- c. Selected criteria should cover all relevant environmental, social and economic considerations and should be applied consistently to fully address the tests set out in paragraph 2.8.9 of NPS EN-5.
- 6.2.16 Amend the CoCP to include references to individual proposed utilities NSIP diversions where relevant.
- 6.2.17 Extend the REAC to explicitly state that:
  - a. Required actions and commitments apply to all elements of the Project, including the utilities NSIPS; and,
  - b. For the avoidance of doubt, this includes all 'Non-Contestable' works to be carried out by utilities statutory undertakers rather than by HE. All REAC measures relevant to proposed utilities works (Contestable and Non-Contestable) must be secured within the Environmental Management Plan (EMP2) and thereafter implemented.